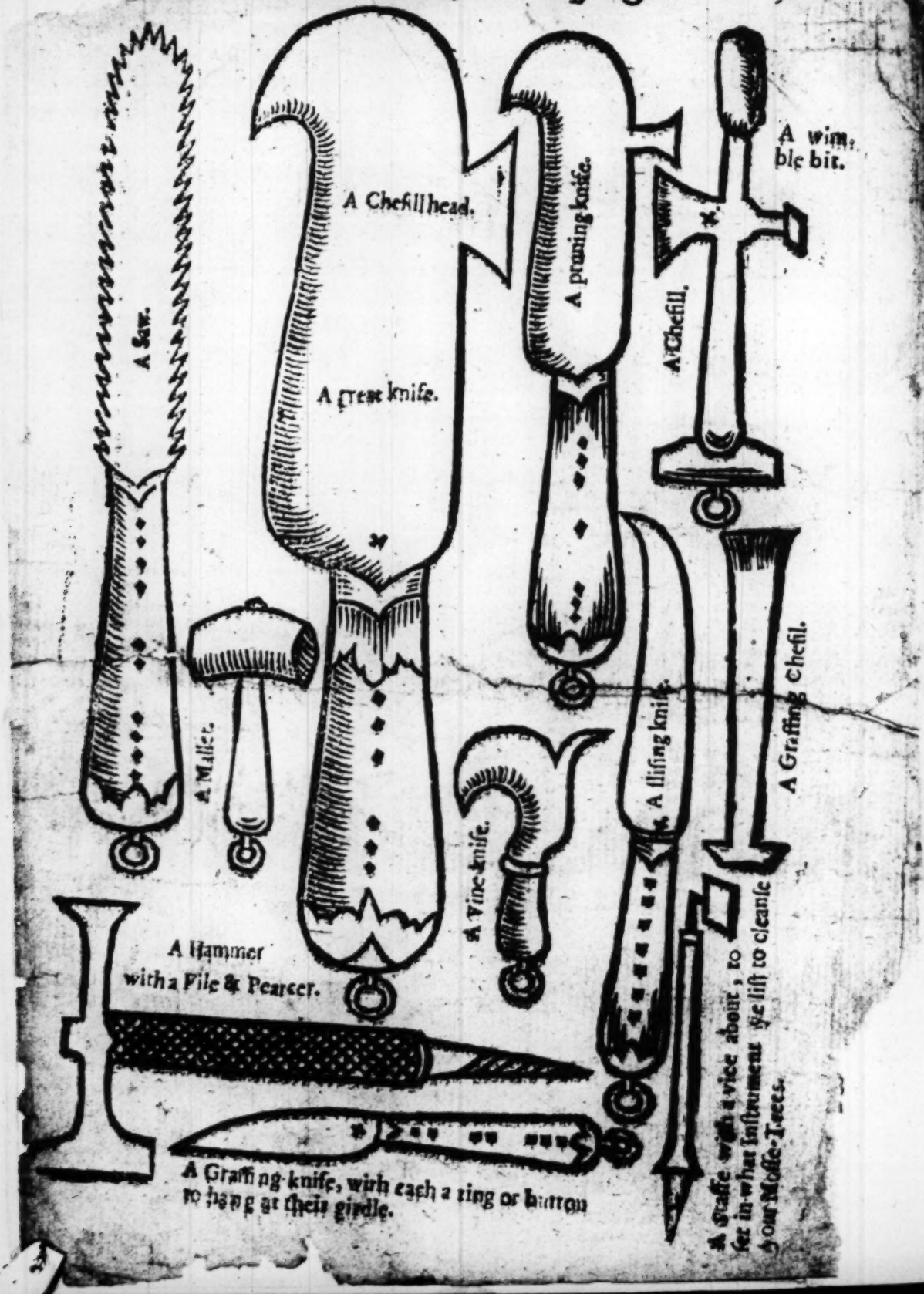
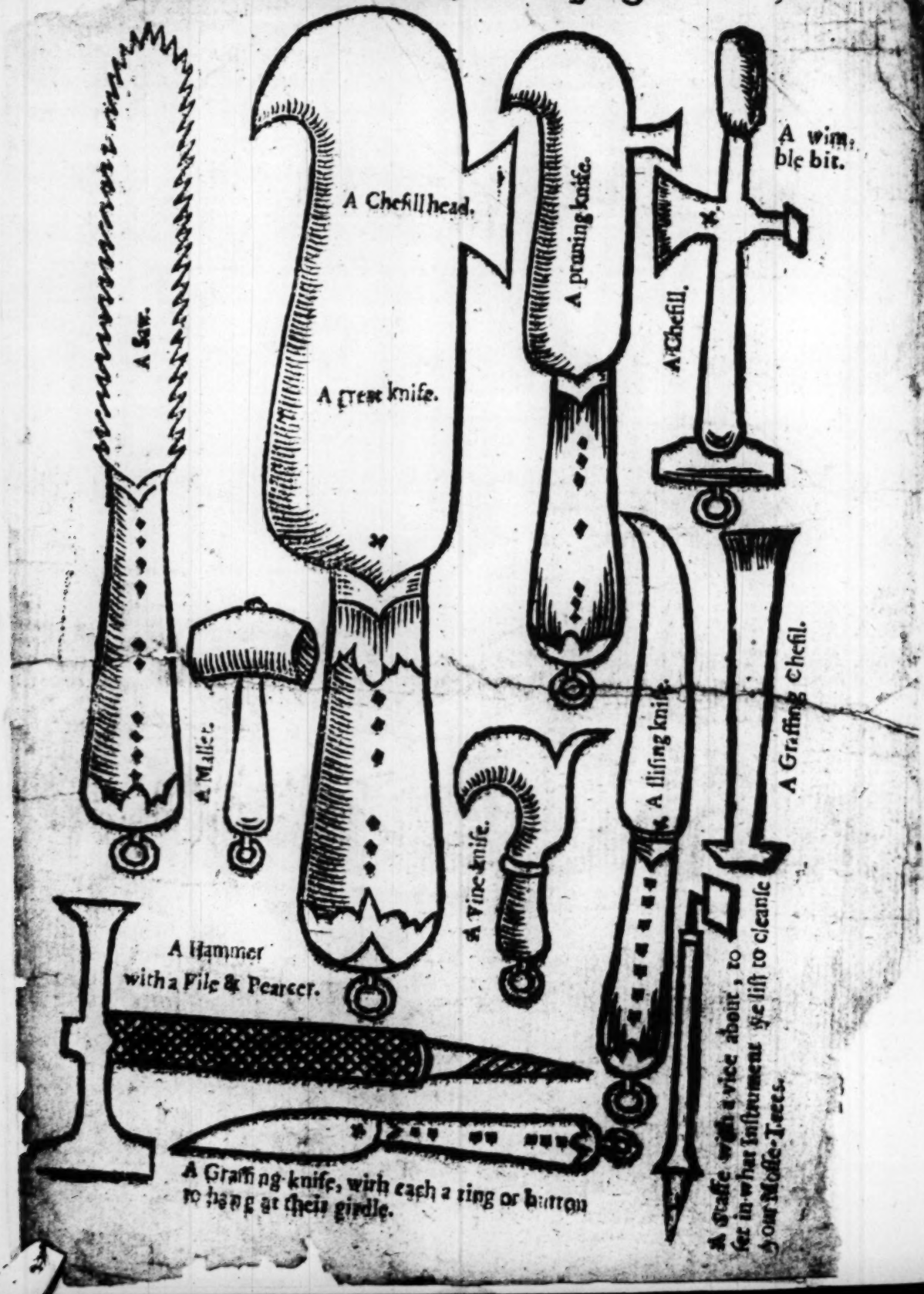
Instruments for Graffing.



Instruments for Graffing.



THE Counrty-Mans

NEW ART OF PLANTING AND GRAFFING:

Directing the best way to make any ground good for a Rich Orchard: With the manner how to Plant and Graffe all sorts of Trees, to Set and Sow Curnels; As also, the Remedies and Medicines concerning the same; With divers other New Experiments;

Practised by LEONARD MASCALL.

Published by Authority.

London Printed, by *Jane Bell*, and are to be sold at the East end of *Christ-Church*, 1656.

THE

Country-Mans

NEWARK OF

PLANTING

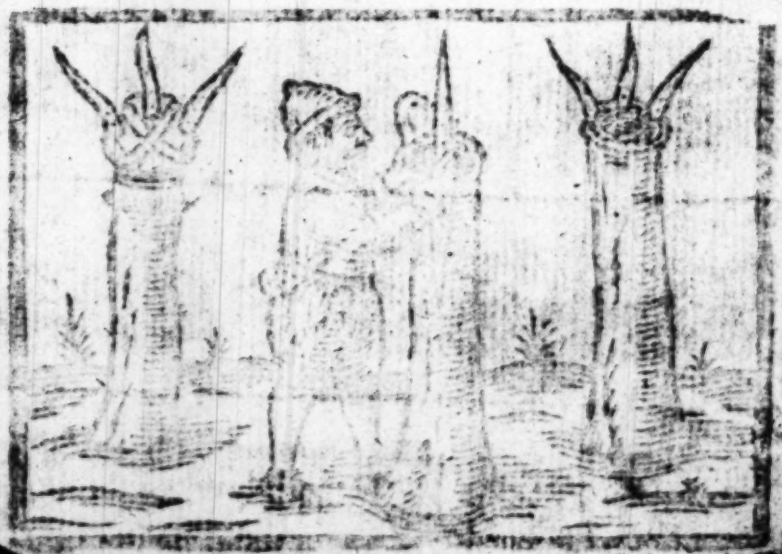
AND

GRAFFING:

Directing the best way to make any ground good for a Rich Orchard: With the manner how to Plant and Graffe all sorts of Trees, to Set and Sow Curneis; As also, the Remedies and Medicines concerning the same; With divers other New Experiments:

Practised by LEONARD MASCALL.

Published by Authority.



Printed, by *Jane Bell*, and are to be sold [illegible] East end of *Christ-Church*, 1656.

this Booke, which ye shall hereof the finde by number and Leafe.

Of the seven Chapters following.

CHAP. I.

This Chapter treateth of the setting of Cornell of Apfelkrout, Plum trees, Pere trees, and Service trees

How to choose your Pepins at the first pressing. Page 1
How to vse the earth to sow your Pepins on 2
How to set unto Poultry for marring your seeds, and how to weed or cleanse your beds of quarters. 2
How to pluck up the wild Cions 3

CHAP. II

This Chapter treateth how to set your wilde trees come of Pepins, when they be first plucked up.

How to dung your wild trees come of pepins. page 3.
How to cut the Principall roots in setting againe. 3
How to set your trees in ranke being young. 4
How to make a space from on rank to another. 4
How to water your plants being dry. 4
How in removing your trees, to plant them againe. 5
The best time for to remoove. 5
Of negligence and for gentlinesse. 5
Most to good to grafte the service tree as to set him. 5
Some trees without grafting have good fruit, and other some being grafted, have but evill fruit. 6
For to augment and multiply your trees. 6
The manner to dresse the fruit of the Pepin tree. 6
How to make good Cipre. 6
To make an Orchard in few yeares. 7

CHAP. III.

This Chapter treateth of the setting of trees which come of Nuts.

How to set trees that do come of Nuts, and the time to plant or set them. 7
For to set them in the spring time. 8
Of the dung and deep digging thereof. 8
Of Nuts and stones like the trees they come of. 8
Of planting the said Nuts. 8
Why fruits shall not have so good savour 8
To set the Pine tree. 9
To set Cherry trees. 9
Trees of Bastard and wild Nuts. 9
To set Filberds and Hazell nuts. 9
To set Damsons, and Plum trees 9
To grafte Cions or Plants on the like. 10
To set all sorts of Cherry trees. 10
How to order Plum trees, and Cherry trees. 10
How to grafte Plum trees, and Cherry-trees 10
How to prune or cut trees. 10
How to cleanse and dress the mosse of trees. 11
To keep the stock being greater then the grafte. 11
The remedy when a bough is broken. 11
How to enlarge the hole done the wrong. 12
To set small staves to stay your Cions. 12
What trees to prune. 13
Why the sower Cherry dureth so long as the great Isle Cherry. 13
To grafte one great Cherry with an other. 13
Of deep setting or shallow 13

CHAP. IV.

This Chapter sheweth how to set other trees of great Cions pricks in the earth without roots, with the pruning of lesser Cions.

TRees taking root prickt of branches 14
How to set them. 14
How to bind them that be weake. 14
How to dig the earth to set them in 14
Of Cions without roots. 15
To plant the Fig tree 15
How to set Quinces 15
The way to set Mulbry trees. 15
The time to cut Cions. 16
To set bush trees as Gooseberies, and small Reisons. 16

CHAP. V.

This Chapter treateth of foure manner of Graffings.

OF divers wayes of grafting. 16
The first way of grafting all sorts of trees. 16
To graffe Apple trees, Peare trees, Quince trees, and medlar trees. 17
The grafting of great Cheries. 17
To graffe Medlars on other Medlers, 17
Of divers kind of graffes on one tree 17
The grafting of the Fig tree. 17
Of grafting the great Abricots, 18
Of grafting of the Service tree. 18
The setting of the Service tree. 18
Of trees hard to graffe in the shield. 18
How to see to trees charged with fruit. 18
Of trees for to choose your Cions on. 19
The Cions on the East part are best. 19
To choose your tree for graffes 19
To keep graffes along time. 19
To keep graffes ere they bud. 19
How you ought to begin to graffe. 19
When is good grafting the wild stocks, 19
To make if the tree be forward or not, 20
When you graffe, what to be furnished withall. 20
Of graffes not prospering the first yeare. 20
For to graffe well and sure, 20
How to trim your graffes. 20
How to cut graffes for Cherries and Plums. 21
A note of your incision. 21
For to take heed ingraffing, ye tise not the barke. 21
How to cut your stock. 21
If your wild stock be great and slender, 22
Trees as great as a mans arme. 22
Of great trees as big as ones Legge 22
The graffs being pinched in the stocks, 22
How you ought to cleave your stocks. 22
To graffe the branches of great trees. 22
How to cut great old branches. 22
How to bind your graffes against winds. 23
To set many graffe in one cleft. 23
To saw your stocks before ye cleave him 23
If the stock cleave too much, or the barke open, 23
How graffes never lightly take. 23
How to set graffes right in the stock 23
Of setting in of the graffes 24
A note of the same. 24
How to draw forth the wedge, 24
How to cover your clifts on the head 24
How ye ought to see well to the binding of your graffes. 24
How you ought to temper your Clay, 25
How to bush your graffe heads 25
The second way to graffe high branches. 25
The third manner of grafting, is betwixt the barke and the tree. 26
How to dresse the head, to place your graffes betwixt the barke and the tree. 26
How to cover the head of your stock, 26
The manner of grafting in the shield 27
To graffe in Summer so long as the trees be leaved, 27
The big Cions are best to graffe. 27
How to take off the shield 27
How to know if your scutchion or shield be good or bad. 28
How to graffe on young trees, 28
How to set or place your shield, 28
Note also, 28
How to raise up the barke, to set your shield on. 28
How to bind on your shield, 29
In a tree ye may graffe two or three shields. 29
Of the time to unbind your shield. 29

How

How to cut the branches, graft on trees. 29

CHAP. VI.

This Chapter is of transplanting, or altering the trees.

THe sooner ye transplant or set them, it shall be the better, P. 30
To plant or set toward the South. 30
How to cut the branches before ye set. 30
Appell trees comonly must be disbranched, afore ye set them againe. 31
All wild stocks must be disbranched. 31
What trees do love the Sunne, and what trees the cold aire, 31
Of what sorts and manner of trees. 31
How to plant or set tree. at large. 32
Ordering your trees. 39
How ye ought to enlarge the holes when ye plant your trees. 34
Of dung and good earth for your trees. 34
If worms be in the earth. at your roots of trees. 34
To dig well the earth about the roots, 34
The nature of places. 34
Of good earth. 35
With what ye ought to bind your trees, 36

CHAP. VII.

This Chapter treateth of medicening and keeping the Trees, when they are planted and set.

THe first counsell is, when your trees be but planes (in dry weather) they must be watred. 35
With what dung ye ought to dung your trees. 35
When ye ought (in Summer) to uncover your trees. 35
When to cut or prune your trees. 36
How to cut great branches, and when, 36
How to leave your great branches cut. 36
Of the trees having great branches. 36
Of the barrennesse of trees, of cutting ill branches, and uncovering the roots. 37
Of trees which ye must breake, or pluck up the rootes. 37
What doth make a good Nut. 37
Trees eaten and destroyed with Caterll, to be graft againe. 37
How wild stocks ought not hastily to be removed. 37
When to cut away, Cions from the head, 38
How some times to cut the principall members. 38
How to guid and govern the said trees. 38
A kind of sickenesse in trees. 38
Trees which have wormes in the barke. 39
Of Snailes, Ants and wormes that marre trees. 39
How to take those straing creeping worme. 39
To keep ants from trees. 40
A note of all ill aires and weathers, 41
To defend the Caterpiller. 41

Here followeth the Table of Graffing straunge and subtile wales in using of fruit and trees.

TO graffe on a Vine upon another 41
To help a tree long without fruit. 42
To have Peaches two monthes afore others 42
To have Damsons to *Alhallowtide*, 42
To have Medlars Cheries and Peaches in eating to tast like spice 43
To make a Muscadel tast. 43
To have Appells and Peares to come without blossoming, 43
To have Appels and Chestnuts rath, and longe on the tree to remaine, 43
To have good Cheries unto *Alhallowtide* 43
To have rath Medlars two monthes before others. 44
To have Peares timly. 44
To have Misdales or Medlars without stones. 44
To have other Pares betimes. 44
To have Mulberies very soone, and dure long. 44
To keep Peares a yeare. 44
To have fruit tast halfe an Apple, and half a Peare. 44
Time of Grafting. 45
To graffe the Quinzy Apple, 45
To destroy Pismires, or Ants about the tree. 45
An other for the same. 45
To have Nut, Plums, and Almonds greater

ter and fairer then others. 45
To make an Oake (or other tree) as green in winter as in Summer, 45
The time of planting without roots, and with roots, 46
To keep fruit from the frost. 46
The chosen dayes to plant and graffe. 46
To have green Roses all the yeare. 46
To keep Reisons or Grapes good a yeare. 46
To make fruit laxative from the tree 46
Of the Solle, and manuring of the earth. 47

Here followeth a Table of divers other practises meet to be knowne.

To graffe one Vine upon another, P. 48
Chosen dayes to graffe in and to choose your Cions. 48
How to gather your Cions. 48
Of wormes in the trees or fruit, 49
The setting of stones, and the ordering thereof. 50
How to gather gumme of any tree. 50
To set a whole apple, 50
The setting of Almonds. 50
The watring of Pepins 51
To plant or set Vines. 51
To set or plant the Cherry tree. 51
To keepe Cherries good a yeare. 52
Remedy against Pismiers and Ants, 52
The setting of Chestnuts. 52
To make all stone fruit tast as ye shal think good 53
The graffing of the medlar or Mispel. 53
The bearing of fruit of the Fig tree. 53
The planting the Mulbery & Fig tree. 53
The tree that beareth bitter fruit. 54
To help barred trees, 54
Another way for the same, 54
To keepe fruit after they be gathered. 54
The mulbery tree liketh his earth. 54
Of moise on your trees. 55
To keep Nuts long 55
To cut or prune the Peach tree. 55
To colour peach stones, 56
If peach trees be troubled with wormes, 56
To have the Peach without stones. 56
Another for the same. 57
To helpe trees that do not prosper. 57
To graffe Apples, to last on the trees to Alhallontide. 57
To make Cherries and Peaches smell like spice. 57
To graffe thee an Apple shall be halfe sweet, and halfe sower. 57
To graffe the Rose on the Holly tree. 57
Of the keeping of plums. 58
Of the altring of Peares. 58
Of the making of Cider and Petry. 58
How to help frozen Apples, 59
How to make Apples fall from the tree. 59
To water trees in the Summer if they wax dry about the root. 59
How to cherish Apple trees. 59
How to make an Apple grow in a glass, 59
How to graffe many sorts of Apples on one tree 60
How to colour Apples of what colour yee list. 60
How to graffe and to have Apples without core. 60
Of the setting of Vine plants 61
How to prune or cut a Vine in Winter 62
Of the ordring of the Vine and Grape. 62
How to have Grapes without stones. 64
To make the Vine to bring a Grape to tast like clarit. 64
Of the gathering of your Grapes 65
How to know when your Grapes be ripe enough. 65
How to prove or tast Wine. 65
Of the ordring, setting and planting of Hops. 66
How to choose your Hope. 67
How to sow the seeds 67
Of the setting your Poules. 67
How to prune the Hop. 67
How to gather your Hops. 68
What poles are best for your purpose. 68
How to order and dresse your hills. 68
Of the best ground for your Hop. 69
A near of all the rest above said. 69
How to pack and keep your Hops 70

The

Instructions for the PLANTER and GRAFFER.

ALwaies before ye do intend to Plant or Graffe, it shall be meet to have good experience in things meet for this Art, as in knowing the Natures of all Trees and Fruits, and the differances of Climates, which be contrary in every Land: also to understand the East and West winds, with aspect, and Stars, to the end ye may begin nothing that the Wind or Raine may oppresse, that your labour be not lost, and to mark also and consider the disposition of the Elements that present yeare, nor all yeares be not of like operation, nor yet after one sort: the Summer and Winter do not beare one rate on the Earth, nor the Spring time alwaies Raine, or Autumne alwaies moist: this note that ye understanding, without a good and lively marking spirit, few or none (without learning) shall discerne of the varieties and qualities of the earth, and what it doth aske or refuse. Therefore it shall be good to have understanding of the ground wherein ye doe

plant, either Orchards or Gardings with fruit: first it behoveth to make a ſure defence, to the end that not only rude perſons and Children may be kept out, but all kine of hurtfull Cattel, indamaging your Plants or Trees, as Oxen, Kine, Calves, Horſes, Hoges, and Sheep, as the rubing of Sheep doth greatly burne the ſap, and often doth kill your Trees and Plants and where they are broken, or bruſed with Cattell, it is doubtfull to grow after. It ſhall be good alſo to Set, Plants, or Graffe Trees all of like nature, and ſtrength together, that the great and high Trees, may not overcome the low and weak, for when they be not of like hight, they grow nor ripe not your fruit ſo well at one time, but the one before the other. That earth which is good for Vines is good alſo for other fruit.

Ye muſt digge your holes a year before you plant, that the earth may be the better ſeaſoned, mortified, and waxtender, both by Rain in Winter, and Heat in Sommer, that there by your Plants may take root the ſooner, if ye wil make your holes and plants both in a year, at the leaſt, ye ought to make your holes two months before ye plant, and as ſoon as they be made, then it ſhall be good to burne ſtraw, or ſuch like therein, to make your ground warme: the further ye make them aſunder the better your Trees ſhall beare, make your holes like unto a Furnace, that is, more ſtraight in the mouth, then beneath, whereby the root may have the more roome, and by ſtraightneſſe of the mouth, the leſſe Raine or cold ſhall enter thereby in Winter, and alſo leſſe heat to the root in Sommer.

Looke

Looke alſo that the earth ye put to the roote, be neither wet, nor laid in water: they doe commonly leave a good ſpace betwixt every Tree, for the hanging boughes, being nigh together, ye cannot ſet rootes, nor ſow nothing ſo well under your trees, nor thay will not beare fruit ſo well: Some loweth fortie foot ſome thirtie foot, ſome thirtie between every Tree: Your plants ought to be greater then the handle of a ſhovell, and the leſſer the better: See they be ſtrong, without knots, or knobes, having a long ſtraight graine of bark, which ſhall be ſooner be apt to take Graffes, and when ye ſet branches or boughs of old Trees, chooſe the youngeſt and ſtraighteſt, branches hereof, and theſe Trees which have borne yearly good fruit before, taken of thoſe that grow on the ſunny ſide, ſooner then thoſe that grow in the covert or ſhadow, and when ye take up or alter your plants, ye ſhall note to what wind your plant is ſubject, and ſo let them be ſet againe, but thoſe which have grown in dry grounds, let them be ſet in moiſt ground: Your plants ought to be cut off three foot long. If ye will ſet two or three plants together in a hole, ye muſt take heed the roote touch not one another, for then the one will periſh and rot the other. or die by Wormes or other Varmin, and when you have placed your plants, in the earth, it ſhall be good to ſtrike downe to the bottom of every hole, two ſhort ſtakes as great as your arme, on either ſide your hole, one: and let them appear but a little above the earth, that ye may (thereby in Sommer) give water unto the roots if need be. Your young plants, and rooted Trees are commonly ſet in Au-

tumne from the first unto the fifteenth of October, yet some are of opinion better after *Alhallentide* unto *Christmas*, then in the Spring, because the earth will die too soon after, and also to set Plants without roots after *Michalmas*, that they may be the better molified and gather root against the spring, whereof ye shall find hereafter more at large. This much have I thought meet to declare unto the Planters and Graffers, whereby they may the better avoid the occasion and danger of Planting and Graffing which may come often times through ignorance.

The Art of PLANTING AND GRAFFING.

CHAP. I.

This Chapter treateth of setting of Kernels, young Plum-trees, and Pear-trees, of Damson and Service-trees.

FOr to make young trees of the Pepins of Apples, Pears, Plums, and Services; First ye must prepare and make a great bed or quarter well replenished, blended or mixt with good fat earth, and placed well in the Sun, and to be well laboured and digged a good time before you do occupy it: and if you can by any meanes, let it be digged very deep the Winter before, in blending or mixing it well together with good fat earth, or else let it be mixed almost the half with good dung: and so let it rot and ripen together with the earth. And see alwaies that plot be clean where you intend to Plant, that no wild Cion or Plants do spring or grow thereon. Then in the moneth of *September*, *December* or thereabouts, take of the Pepins,

or Pomes of the ſaid fruit at the firſt preſſing out of your liquor, before the kernels be marred or bruiſed: then take out of them, & rub a few at once in a cloth, & dry them betwix your hands, & take ſo many thereof as you ſhal thinke good: then make your bed ſqoare, fair and plain, and ſow your ſeeds thereon, then take and cover them with a rake lightly, or with earth, not putting too much upon them. This done, divide your beds into quadrants, or ſquares, of four foot broad, or thereabouts, that when you liſt, you may cleanſe them from the one ſide to the other, without treading thereon. Then ſhal you cover your Seeds or Pepins with fine earth, ſo ſifting all over them, that then they may take the deeper and ſurer root, and keep the better in Winter following, and if you liſt ye may rake them a little all over, ſo that ye raiſe not your Pepins above the earth.

Another way how one may take the Pepins at the firſt coming of the liquor, or preſſing.

YE ſhal chooſe the greateſt and faireſt kernels or Pepins, and take them forth at the firſt bruiſing of your fruit; then dry them with a cloth, and keep them all the Winter, untill Saint *Andrews* tide: then a little after ſow them in good earth, as thin as ye ſow Peaſon, and then rake them over as the other.

How one ought to uſe his earth to ſow Pepins without dunging.

BUt in this manner of digging (in the ſpring) it is not ſo great need for to raiſe or dig ſo deep as that which is dunged in Winter: but to divide your quarters, in covering your Pepins not ſo much with earth as thoſe which be ſowen with good dung, but when ye have ſowen them, rake them a little all over.

How ye ought to take heed of Poultrey, for ſcraping of your beds, or quarters.

SO ſoon as your Pepins be ſown upon your beds or quarters, let this be done one way or other; that is, take good heed that your Hens do not ſcrape your beds or quarters; therefore ſtick them all over light and thin with boughes or thornes, and take good heed alſo to Swine, and all other Cattel.

How

How to weed or cleanse your beds or quarters.

WHen the Winter is past and gone, and that ye see your Pepins rise and grow, so let them increase the space of one yeare: but see to cleanse weeds, or other things which may hurt them as ye shall see cause. And in the Summer when it shal wax dry, water them in the evenings.

How one ought to pluck up the wild Cions.

WHen these wild Cions shal be great, as of the growth of one year, ye must then pluck them up all in the winter following, before they do begin to spring again: Then shal ye set them, and make of them a wild Orchard as followeth.

CHAP. II.

This Chapter treateth how one shall set again the small wild trees, which come of Pepins, when they be first pluckt up.

FOr the bastard or wild trees, incontinent as soone as they be pluckt up, ye must have of other good earth wel trimmed and dunged, and to be wel in the Sun, and wel prepared and drest, as it is said already of the Pepins.

How to dung your Bastard or wild young trees which come of Pepins.

ABout Advent (before Christmas) ye must dig and dung wel the place whereas ye wil set them, and make your square of earth even and plain, so large as ye shal thinke good; then set your wild trees so far one from another as ye thinke meet to be grafted, so that they may be set in even ranks, and in good order, that when need shal require, ye may remove or renew any of them, or any part thereof.

How ye ought in re-planting or setting, to cut off in the midst the principall great root.

IN what part soever ye do set your trees, ye must cut off the great master root, within a foot of the stock, and all other big roots, so that ye leave a foot long thereof, and so let them be set, and

make your rankes crosse-wise one from another halfe a foot, or thereabouts, and ye must also see that there be of good dung more deep and lower then ye do set your trees, to comfort the said roots withall.

How you ought to set your trees in ranke.

YE shal set your smal young trees in rankes, half a large foot one from another: and let them be covered as ye do set them with good fat earth all over the roots.

How to make the space from one ranke to another.

YE shal leave between your ranks, from one ranke to another, one foot, or thereabouts, so that ye may passe between every ranke for to cleanse them if need require, and also to graffe any part or parcell thereof when time shal be meet. But you must note, in making thus your rankes, ye shal make as many Allies as rankes. And if ye thinke it not good to make so many Allies, then divide those into quarters of five foot broad, or thereabouts, and make and set four ranks (in each quarter of the same) one foot from another, as ye use to set great Cabbage. And as soon after as you have set them in ranke and good order, as is aforesaid, then shall ye cut off all the sets even by the ground. But in this doing, see that ye do not pluck up or loose the earth which is about them: or if ye will, ye may cut them before ye do set them in ranks; If ye do so, see that ye set them in such good order, and even with the earth, as is aforesaid. And it shal suffice also to make your ranks as you shal see cause. And looke that ye furnish the earth all over with good dung, without mingling of it in the earth, nor yet to cover the said plants withall, but strowed betwixt; and ye must also look wel to the cleansing of weeds, or graffe, or other such things which will be a hurt to the growth of the plants.

How to water Plants when they may drie.

IT shal be good to water them when the time is drie, in the first year: Then when they have put forth new Cions, leave no more growing but that Cion which is the principal and faicest, upon every stock one: all the other cut off hard by the stock: and ever as there do grow smal twigs about the stock, ye shal (in the moneth of *March* and *April*) cut them all off hard by the stock. And if ye then stick by every plant a pretty wand, and so bind them

with

with willow banke, brier, or Oziers, it shal profit them much in their growth. Then after five or six yeares growth, when they be so big as your finger, or thereabouts, ye may then remove any of them whereas you will have them grow and remain.

How ye ought to remove trees, and to plant them again.

THe manner how ye ought to remove trees, is shewed in the sixt Chapter following: then about two or three year after their removing, ye shal graffe them, for then they will be the better rooted. As for the others which ye leave still in ranks, ye may graffe them whereas they stand, as ye shal see cause good. When ye have plucked up the fairest to plant in other places (as is aforesaid) the manner how to Graffe them, is shewed in the fifth Chapter following. But after they shal be so grafted, in what place soever it be, ye shall not remove or set them in other places again, untill the Graffes be well closed upon the head of the wild stock.

When the best time is to replant or remove.

WHen the head of the stock shal be all over-closed about the graffe, then ye may when ye will, transplant and remove them (at a due time) where they shal continue. For with often moving, ye shal do them great hurt in their roote, and be in danger to make them die.

Of negligence and forgetfulnesse

IF peradventure ye forget (through negligence) and have not the small Cions two or three yeares grow about the roots of your stocks unplucked up, then if ye have so done, ye may wel pluck them up, and set them in ranks, as the other of the Pepin. But you must set the ranks more large, that they may be removed without hurting of each other roots: and cut off all the small-twigges above as need shal require, though they be set or graffed. Order them also in all things as those that Cions of a yeares growth.

It is not so convenient to graffe the Service tree, as to set him.

WHereas ye shal see young Service trees, it shal be most profit in setting them; for if you graffe them, I believe you shal win nothing thereby. The best is only to pluck up the young Bastard trees, when they are as great as a good walking-staffe, then prune or cut off their branches, and carry them to set whereas they

ma ybe no more removed: and they ſhall profit more in ſetting, then graffing.

Some trees without graffing bring forth good fruit, and ſome other being graffed, be better to make Sider of.

It is here to be marked, that though the Pepins be ſowed of the Pomes of Pears and good Apples, yet ye ſhall find that ſome of them do love the tree whereof they came: and thoſe be right, which have alſo a ſmooth barke, and as fair as thoſe which be graffed: the which if you plant or ſet them thus growing from the maſter root without graffing, they ſhall bring as good fruit, even like unto the Pepin whereof he firſt came. But there be other new ſorts commonly good to eat, which be as good to make Sider of as thoſe which ſhal be graffed for that purpoſe.

When you liſt to augment and multiply your trees.

After this ſort ye may multiply them, being of divers ſorts and diverſities, as of Pears, or Apples, or ſuch like. Notwithſtanding, whenſoever you ſhal find a good tree thus come of the Pepin, as is aforeſaid, ſo ſhal ye uſe him. But if you wil augment trees of themſelves, you muſt take Graffes, and ſo graffe them.

Of the manner and changing of the fruit of the Pepin tree.

WHenſoever ye do replant or change your Pepin trees from place to place, in ſo removing often the ſtock, the fruit thereof alſo changes: but fruit which doth come of graffing doth alwaies keep the forme and nature of the tree whereof he is taken: for as I have ſaid, as often as the Pepin trees be removed to a better ground, the fruit thereof ſhal be ſo much amended.

How we ought to make good Sider.

HEre is to be noted, if ye wil make good Sider of what fruit ſoever it be, being Pears or Apples, but ſpecially of good Apples & wild fruit, have alwaies regard unto the ripening thereof; ſo gathered dry, then put them in dry places, on boards in heapes, covered with dry ſtraw, and whenſoever ye wil make Sider thereof, chuſe out all thoſe that are black, bruiſed, and rotten Apples, and throw them away, then take and uſe the reſt for Sider. But here to give you underſtanding, do not as they do in the County

of

of *Mentz*, which do put their fruit gathered into the mid'ſt of their Garden, in the raine and miſlings, upon the bare earth, which wil make them to loſe their force and vertue, and doth make them alſo withered and tough, and likely a man ſhall never make good Sider, that ſhall come to any purpoſe or good profit thereof.

To make an Orchard in few yeares.

SOme do take ſtraight ſlips, which do grow from the roots, or of the ſides of the Apple trees, about *Michaelmas*, and do ſo plant or ſet them (with Oates) in good ground, whereas they ſhall not be removed, and ſo graffe (being wel rooted) thereon. Or herſome do take and ſet them in the ſpring time (after *Chriſtmas*) in likewiſe, and do graffe thereon when they be well rooted: and both do ſpring well. And this manner of way is counted to have an Orchard the ſooneſt. But theſe trees wil not indure paſt twenty or thirty yeares.

CHAP. III.

This Chapter is of ſetting Trees of Nuts.

How one ought to ſet trees which come of Nuts,

AND for to ſet trees which come of Nuts, when you have eaten the fruit, looke that ye keepe the Stones and Kernels thereof, then let them be dried in the wind, without the vehemency of the Sunne, ſo reſerve them in a box, and uſe them as before.

Of the time when ye ought to plant or ſet them.

YE ſhal plant or ſet them in the begining of Winter, or afore *Michaelmas* whereby they may the ſooner ſpring out of the earth. But this manner of ſetting is dangerous: for the Winter then comming in, and they being young and tender in coming up, the cold wil kill them. Therefore it ſhal be beſt to ſtay and reſerve them till after Winter. And then before ye do ſet them, ye ſhall ſoke or ſteep them in Milke, or in Milke and Water, ſo long till they do ſtink therein: then ſhal you dry them, and ſet them in good earth, in the change or increaſe of the Moon, with the ſmall end upward, four fingers deep; then put ſome ſtick thereby to marke the place.

For

For to set them in the Spring time.

IF ye will plant or set your Nuts in the Spring time where ye will have them still to remain, & not to be removed, the best & most easie way is to set in every such place (as ye think good) three or four Nuts nigh together, and when they do all spring up, leave none standing but the faireſt.

Of the dunging and deep digging thereof.

ALso whereas ye shal thinke good, ye may plant or set all your Nuts in one square or quarter together in good earth and dung, in such place and time as they use to plant. But see that it be wel dunged, and also digged good and deep, and to be well mingled with good dung throughout; then set your Nuts three fingers deep in the earth, and halfe a foot one from another: ye shal water them often in the Summer when there is dry weather, and see to weed them, and dig it as ye shal see need.

Of Nuts and Stones like the trees they came of.

IT is here to be noted, that certain kind of Nuts and Kernels do love the trees they came of, & their fruit is like unto them, when they be planted in good ground, and set wel in the Sun; which be the Walnuts, Chestnuts, all kind of Peaches, Figgs, Almonds, and Apricocks; all these do love the Trees they came of.

Of the planting the said Nuts in good earth, and in the Sun.

ALL the said Trees do bring as good fruit of the said Nuts, if they be wel planted, and set in good earth, and well in the Sun, as the fruit and Trees they came of.

Why fruit shall not have so good savour.

IF ye plant good Nuts, good Peaches, or Figs in a Garden full of shadow, the which hath afore loved the Sun, as the Vine doth for lack thereof, their fruit shal not have so good savour, although it be all of one fruit; and likewise so it is with all other fruit and trees; for the the goodnesse of the earth, and the fair Sun, doth preserve them much.

For to ſet the Pine-tree.

FOr to ſet the Pine-tree, you muſt ſet or plant them of Nuts, in March, or about the ſhoot of the ſap, not lightly after; ye muſt alſo ſet them where they may not be removed after, in holes well digged, and wel dunged, not to be tranſ-planted or removed again, for very hardly they wil ſhoot forth Cions, being removed, eſpecially if ye hurt the maſter-root thereof.

For to ſet Cherrie-trees.

FOr to ſet ſowr-Cherries which do grow commonly in Gardens, you ſhall underſtand they may well grow of ſtones, but better it ſhall be to take of the ſmall Cions which do come from the roots. then plant them, and ſooner ſhall they grow then the ſtones, and thoſe Cions muſt be ſet when they are ſmall, young and tender, as of two or three years growth; for when they are great, they profit not ſo well: and when ye ſet them, ye muſt ſee to cut off all the boughs.

Trees of Baſtard and wild Nuts.

THere be other ſort of Nuts, although they be well ſet in good ground, and alſo in the Sun, yet will they not bring halfe ſo good fruit as the other, nor commonly like unto thoſe Nuts they came of, but be a baſtard, wilde or ſowr fruit, which is the Filberd, mal Nuts, of Plums, of Cherries, and the great Apricocks: therefore if you will have them good fruit, you muſt ſet them in manner and form following.

How to ſet Felberds or Haſell trees.

FOr to ſet Filberds or Haſels, and to have them good, take the ſmall wands that grow out from the root of the Filbert or Hazel tree (with ſhort hairy twigs) and ſet them, and they ſhall bring as good fruit as the tree the came of. It ſhal not be needful to prune, or cut off the branches thereof when ye ſet them, if they be not great; but thoſe that you do ſet, let them be of two or three years growth, and if ye ſhall ſee thoſe Cions which ye have planted, not to be fair and good, or do not grow and proſper well, then (in the ſpring time) cut them off hard by the root, that other ſmall Cions may grow thereof.

To ſet Damſons or Plum-trees.

IN ſetting Damſons or Plum-trees, which fruit ye would have like to the tree they came of: if the ſaid trees be not graft before ye ſhal take only the Cions that grow from the root (of the old ſtock)

which groweth with ſmall twigs, and plant or ſet them: and their fruit ſhall be like unto the trees they came of.

To take Plum-graffes and graffe them on other Plum-trees.

AND if your Plum-tree be grafted already, and have the like fruit that ye deſire, ye may take your graffs thereof; and graffe them on your Plum-trees, and the fruit that ſhall come thereof, ſhal be as good as the fruit of the Cions which is taken from the root, becauſe they are much of like effect.

To ſet all ſorts of Cherries.

TO ſet all ſorts of great Cherries, and others, ye muſt have the graffes of the ſame trees, and graffe them on other Cherry-trees, although they be of fowr fruit: and when they are ſo graft, they will be as good as the fruit of the tree whereof the graffe was taken, for the ſtones are good to ſet, to make wild Cions, or plants to graffe on.

The manner how one may order both Plum-trees, and Cherry trees.

FOr as much as theſe two kind of trees, that is, the Cherry, and the Plum-tree; for when they be ſo graft, their roots be not ſo good, nor ſo free as the branches above: wherefore the Cions that do come from the roots, ſhall not make ſo good and frank trees of; It is therefore to be underſtood, how this manner and ſort is, to make frank-trees, that may put forth good Cions in time to come, which is when they be great and good; then if ye will take thoſe Cions, or young ſprigs from the roots, ye may make good trees thereof, and then it ſhall not need to graffe them any more after, but to augment one by another, as ye do the Cions from the root of the Nut, as is aforeſaid, and ye ſhall do as followeth.

How to graffe Plum-trees, and Cherry-trees.

YE may well graffe Plum-trees, and Cherry-trees, in ſuch good order as ye liſt to have them, and as hereafter ſhall be declared in the fifth Chapter following: for theſe would be graffed while they are young and ſmall, and alſo graft in the ground, for thereby one may dreſſe and trim them the better, and put one graffe in each ſtock of the ſame. Cleave not the heart, but a little on the one ſide, nor yet deep, or long open.

How ye muſt prune or cut your trees.

WHen your graffes be well taken on the ſtock, and that the graffes do put forth fair and long, above one years grow, ye muſt prune or cut the branch off, commonly in the Winter, (when the

they prune their Vines (a foot lower, to make them ſpread the better; then ſhall ye mingle all through with good fat earth, the which will draw the better to the place, which ye have ſo pruned or cut.

The convenieſt way to cleanſe and prune, or dreſſe the roots of trees.

AND for the better cleanſing and pruning trees beneath, ye ſhal take away all the weeds, and graffe about the roots; then ſhal you dig them ſo round about, as ye would ſeem to pluck them up, and ſhall make them halfe bare; then ſhall ye enlarge the earth about the roots; and whereas ye ſhall ſee them grow fair and long, place or couch them in the ſaid hole and earth again: then ſhall ye put the cut end of the tree where it is graft, ſomwhat lower then his roots were whereby his Cions ſo graft ſhall ſpring ſo much the better.

When the ſtock is greater then the graffe.

WHen as the tree waxeth, and ſwelleth greater beneath the graffing then above; then ſhall ye cleave the roots beneath, ann wreath them round, and ſo cover them again. But ſee you break no root thereof, ſo will he come to perfection. moſt men do uſe this way; If the ſtock wax greater then the graffes, they do ſlit down the bark of the graffes above, in two or three parts, or as they ſhall ſee cauſe: and ſo likewiſe, if the graffs wax greater above then the ſtock, ye ſhall ſlit down the ſtock accordingly, with the edge of a ſharp kniſe. This may well be done at any time in *March*, *April*, and *May*, in the increaſe of the Moon, and not lightly after.

The remedy when any bough or member of a tree is broken.

IF ye ſhall chance to have boughs, or members of trees broken, the beſt remedies ſhall be to place thoſe boughs or members right ſoon again, (then ſhall ye comfort the roots with good fat earth) and bind faſt thoſe broken boughs or members, both above and beneath, and ſo let them remain unto another year, till they may cloſe and put forth new Cions.

When a member or bough is broken, how to prune them.

WHereas ye ſhall ſee under or above ſuperfluous boughs, you may cut or prune off, (as ye ſhall ſee cauſe) all ſuch boughs hard by the tree, at a due time, in the Winter following. But leave all the principal branches, and whereas any are broken, let them be cut off beneath, or elſe by the ground, and caſt them away: thus

muſt you do yearly, or as you ſhall ſee caſe, if you will keep your trees well and fair.

How one ought to enlarge the hole about the tree root.

IN pruning your trees, if there be any roots, ye muſt enlarge them in the hole, and ſo wreath them, as is aforeſaid, and uſe them without breaking, then cover them again with good fat earth which you ſhall mingle in the ſaid hole, and it ſhall be beſt to be digged all over a little before, and ſee that no branch or root be left uncovered; and when you have thus dreſſed your trees, if any root ſhall put forth, or ſpring hereafter out of the ſaid holes, in growing, you may ſo prune them as ye ſhall ſee cauſe, in letting them ſo remain two or three yeares after, untill ſuch time as the ſaid graffes be ſprung up, and well branched.

How to ſet ſmall ſtaves by to ſtrengthen your Cions.

TO avoid danger, you ſhall ſet or prick ſmall ſtaves about your Cions, for fear of breaking: and then after three or four yeare, when they be well branched, ye may then ſet or plant them in good earth, (at the beginning of Winter) but ſee that ye cut off all the ſmall branches hard by the ſtock, then ye may plant them where you think good, ſo as they may remain

In taking up of trees, note.

YE may well leave the maſter root in the hole (when you dig him up) if the removed place be good for him, cut off the maſter root by the ſtub, but pare not off all the ſmall roots, and ſo plant him, and he ſhall profit more thus, then others with all their maſter-roots. When all trees be great, they muſt be diſ-branched, or boughs cut off, before they be ſet again, or elſe they will hardly proſper. If the trees be great, having great branches or boughs, when ye ſhall dig them up, ye muſt diſ-branch them before you ſet them again; for when trees ſhal be thus pruned, they ſhal bring great Cions from their roots, which ſhall be frank and good to replant, or ſet in other places, and ſhall have alſo good branches and roots, ſo that after it ſh all not need to graffe them any more, but ſhall continue one after another to be free and good.

How to couch the roots when they are pruned.

IN ſetting your trees again, if ye will dreſſe the roots of ſuch as ye have pruned, or cut off the branches before, ye ſhall leave all ſuch ſmal roots which grow on the great root, and ye ſhal ſo place thoſe roots in re-planting again not deep in the earth, ſo that they

may

may soon grow, and put forth Cions: which being well used, you may have fruit so good as the other afore mentioned, being of three or four yeares growth, as afore is declared.

What trees to prune.

THis way of pruning is more hard for the great Cherry (called Healmier) then for the Plum tree. Also it is very requisite and meet for those Cions, or trees, which be graft on the wild sowr Cherry tree, to be pruned also for divers and sundry causes.

Why the sowr Cherry dureth not so long as the Healmire, or great Cherry.

THe wild and sowr Cherry, of his own nature will not so long time endure (as the great Healm-Cherry) neither can have sufficient sap to nourish the graffes, as the great Healme-Cherry is graft; therefore when ye have pruned the branches beneath, and the roots also, so that ye leave roots sufficient to nourish the tree, then set them. If ye cut not off the under roots, the tree will prosit more easily, and also the lighter to be known, when they put forth Cions from the root of the same the which ye may take hereafter.

To graffe one great Cherry upon another.

YOu must have respect unto the Healm Cherry, which is graft on the wild Gomire (which is another kind of great Cherry) and whether you do prune them or not, it is no material: for they dure along time. But you must see to take away the Cions, that do grow from the root of the wild Gomire, or wild Plum tree, because they are of nature wild, and do draw the sap from the said trees.

Of deep setting, or shallow.

SEt your stocks or trees somewhat deeper on the high grounds, then in the vallies, because the Sun (in Sommers) shall not dry the roots: and in low ground more shallow, because the water (in Winter) shall not drown or annoy the roots; Some do mark the stock in taking up, and to set him again the same way, because he will not alter his nature: so likewise the graffes in graffing.

CHAP. IV.

This Chapter sheweth how to set other Trees which come of Wild Cions, pricked in the earth without roots: and also of pruning the meaner Cions.

Trees take root prickt of branches.

THere be certain which take root, being pricked of branches pruned of other Trees, which be the Mulbery, the Fig-tree, the Quincetree, the Service-tree, the Pomgranate-tree, the Apple-tree the Damson-tree, and divers sorts of other Plum-trees, as the Plum-tree of Paradise, &c.

How one ought to set them.

FOr to set those sorts of Trees, you must cut off the Cions, twigs or boughs, betwixt Alhallontide and Christmas, not lightly after. You shall choose them which be as great as a little staffe or more; and look whereas ye can find them fair, smooth, and straight and full of sap withall, growing of young trees, as of the age of three or four years growth, or thereabouts, and look that you take them so from the Tree with a broad Chesil, that you break not or loose any part of the bark thereof, more then half a foot beneath, neither of one side or other: then prune or cut off the branches, and prick them one foot deep in the earth, well digged and ordered before.

How to bind them that be weak.

THose plants which be slender, you must prune or cut off the branches, then bind them to some stake or such like to be set in good earth, and well mingled with good dung, and also to be well and deeply digged, and to be set in a moist place, or else to be well watered in Summer.

How one ought to dig the earth they set them in.

ANd when that ye would set them in the earth, ye must first prepare to dig it, and dung it well throughout a large foot deep in the earth. And when as you will set them every one in his place made (before) with a crow of Iron, and for to make them take root the better, ye shal put with your plants, watered Oates or Barly, and so ye shall let them grow the space of three or four years, or

which when they ſhall be wel branched, then ye may remove them; and if ye break off the old ſtubby roots and ſet them lower, they will laſt a long time the more. If ſome of thoſe plants do chance to put forth Cions from the root, ye muſt pluck them up though they be tender, and ſet them in other places.

Of Cions without roots.

IF the ſaid plants have Cions without roots, which come from the tree root beneath, then cut them not till they be of two or three years growth, by that time they will gather roots to be planted in other places.

To plant the Fig-tree.

THe ſaid plants taken of Fig-trees graffed, be the beſt. Ye may likewiſe take other ſorts of Fig-trees, and graffe one upon the other, for like as upon the wild trees do come the Pepins, even ſo the Fig, but not ſo ſoon to proſper and grow,

How to ſet Quinces.

LIkewiſe the nature of Quinces is to ſpring, if they be pricked (as aforeſaid) in the earth, but ſomtimes I have graffed with great dificulty (ſaith mine Anthor) upon a white Thorne, and it hath taken and born fruit, fair to look on, but in taſt more weak then the other.

The way to ſet Mulberies.

THere is alſo another way to ſet Mulberies, which is as followeth, if you do cut in Winter certain great mulbery boughs or ſtocks aſunder in the body (with a ſaw) in trunchions a foot long or more, then ye ſhall make a great furrow in good earth well and deep, ſo that you may cover well again your trunchions, in ſetting them an end half a foot one from another, then cover them again, that the earth may be above thoſe ends, three or four fingers high; ſo let them remain, and water them (in Summer) if need be ſomething, and cleanſe them from all hurtfull weeds and roots.

Another for the ſame.

NOte that within a ſpace of time after, the ſaid trunchions will put forth Cions, the which when they be ſomwhat ſprigged, having two or three ſmall twigs, then ye may tranſplant or remove them where ye liſt, but leave your trunchions ſtill in the earth, for they will put forth many motions, the which if they ſhall have ſcanty of root, then dung your trunchions with good earth, and likewiſe above alſo, and they ſhall do well.

The

The time to cut Cions.

YE shal understand that all trees which do commonly put forth Cions, if ye cut them in Winter, they will put forth and spring more abundantly, for then they be all good to set and plant.

To set Bush-trees, or Goosberies, or Raisons.

THere be many other kind of Bush-trees which will grow of Cions pricked in the ground: as the Goosbery-tree, the small Raison-tree, the Barbery-tree, the Black-thorne-tree, these with many other, if planted in Winter, will grow without roots: you must also prune them, and they will take well enough, so likewise you may prick (in March) of Oziers in moist grounds, and they will grow, and serve to many purposes for your garden.

CHAP. V.

This Chapter treateth of four manner of Graffings.

IT is to be understood that there be many ways of graffings, whereof I have here only put four sorts, the which be good, both sure and wel proved, and easie to do, the which ye may use wel in two parts of the year, & more, for I have (saith he) graffed in our ground, in every month, except *October* and *November*, and they have taken wel, which I have (saith he) in the Winter begun to graffe, and in the Sommer graft in the Scuthion or shield according to the time, forward or slow: for certain trees, especially young fair Cions have enough or more of their sap unto mid *August*, then other some at *Midsummer* before.

The first way to graffe all sorts of trees

AND first of all it is to be noted, that all sorts of Frank-trees, as also trees wild of nature, may be graft with graffes, and in the Scu'chion, and both do take well, but especially those trees which be of like nature: therefore it is better so to graffe. Howbeit they may well grow and take of other sorts trees, but certain trees be not so good, nor will prosper so well in the end.

How to graffe Apple-trees, Pear-trees, Quince-trees, and Medlartrees.

THey graffe the Pear graft on the Pear stock, and Apples upon Apple stocks, Crab or Wilding stocks, the Quince and Medlar upon the White-thorn: but most commonly they use to graffe one

Apple

Apple upon another, and both pears and Quinces they graffe on Hathorn and Crab stock. another kind of fruit called in *France Saulfey*, they use to graffe on the willow stock; the manner thereof is hard to do, which I have not seene, therefore I will let pass at this preseut.

The graffing of great Cheries.

THey graffe the great Chery, called in French *Heaulmiers*, upon the Crab stock, and another long Chery called *Guymies* upon the wild or sower Cherry tree, and likewise one Chery upon another.

To graffe Medlars.

THe Misple or Medlar, they may be graffed on other Medlers or on the white Thorn; the Quince is graffed on the white or black Thorne, and they do prosper well; I have graffed (saith he) the Quince upon the wild Pear stock, and it hath taken and born fruit well and good, but they will not long endure. I believe (saith he) it was be cause the graffe was not able enough to draw the sap from the Pear stock. Some graffe the Medler on the Quince to be great. And it is to be noted, although the stock and the graffe be of contrary natures: yet notwithstanding, neither the graffe nor Scutchion, shall take any part of the the nature of the wild stock so graffed, though it be Pear, Apple, or Quince, which is contrary against many which have written, that if you graffe the Medler upon the Quince tree, they shall be without stones, which is an abuse and mockery. For I have (saith he) proved the contrary my selfe..

Of divers kinds of graffe.

IT is very true, that one may set a tree, which shall beare divers sorts of fruits at once, if he be graffed with divers kinds of graffes as the black, white and green Cherry together, and also Apples of other trees, as Appels and Pears together, and in the Scutchion, ye may graffe) like wise of divers kinds also, as on Pears, Apricots, and Plumes together, and of others also.

Of The graffing the Fig.

YOu may graffe of the Figtree upon the Peach or Apricot, but leave a branch on the stock, and there must be according for the space of yeares, for one shall chance sooner then the other, All trees abovesaid, do take very well being graffed one with the other. And I have not known, or found of any others, how best (saith he)

I have curiously sought and proved, because they say one may graffe in Coleworts, or on Elms, which I think are but jests.

Of the great Apricots.

THe great Apricots they graffe in Summer, in the Scutchion or shield, in the sap or barke of the lesser Apricot, and they be graffed on Peech trees, Fig trees, and principally on Damson or Plum trees, for then they will prosper the better.

Of the Service tree.

OF the Service tree they say and write, that they may hardly be graffe on other Service trees, either on Apple trees, Pear or Quince tree: and I beleeve this to be very hard to do, for I have their (saith he) and they would not prove.

The setting of Service.

THerefore it is much better to set them of Kernels, as it is aforesaid as also in the second Chapter of Planting of Cions, or other great trees, which must be cut in Winter, as such as shal be most meet for that purpose.

Trees which be very hard to begraffed, in the shield or Scutchion.

ALl other manner of trees aforesaid, doe take very well to be graffed with Cions, and also the shield, except Apricots on Peaches Almonds, Percigniers, the Peach tree do take hardly to be graffed but in the shield in Summer, as shall be more largly hereafter declared. As for the Almond Percigniers and Peaches, ye may better set them in Curnels of Nuts, whereby they shall the sooner come to perfection to be graffad.

How a man ought to consider those trees, which be commonly charged with fruit.

YE shall understand that in the beginning of graffing, ye must consider what sort of trees doe most charge the stock with branch and fruit, or that do love the Country or ground where you intend to plant or graffe them: for better it were to have abundance of fruit then to have few or none good.

Of trees whereof to cruse your graffes.

OF such trees as you will gether your graffes to graffe with, ye must take them at the ends of the principall branches, which be also fayrest & greatest of sap, having two or three fingers length of the old wood, with the new, and those Cions or eyes somewhat nigh together, are the best; for those which be long, or far one from another, be not so good for to bring fruit.

The

The Cions towards the East are best.

YE shall understand that these Cions which do grow on the East or Orient part of the tree, are best: ye must not lightly gather of the evill or slender graffes, which grow in the midst of the trees, or any graffes, which do grow within on the branches, or that do spring from the stock of the tree, nor yet graffes which be on very old trees, for thereby ye shall not lightly profit to any purpose.

To chuse your trees for graffes.

AND when the trees whereas you intend to gather your graffes be smal and young, as of five or six yeares groath, do not take of the highest graffe thereof nor the greatest, except it be be of a small tree of two or three yeares, the which commonly hath too much of top or wood, otherwise not, for you shall but mare your graffes.

How to keep graffes a long time.

YE may keepe graffes a long time good, as from *Alhallontide* (so that the leaves be fallen) unto the time of graffing, if that they be well covered in the earth halfe a foot deepe therein, and so that none of them appeare without the earth.

How to keep graffes before they be bud.

YE shall not gather them except ye have need, untill *Christmas* or thereabouts, and put them in the ground nigh any wals, for feare of Moles, Mice; and water, maring the place and graffes. It shall be good to keep graffes in the year before they begin to bud, when that ye will garffe betwixt the bark and the tree and when the trees begin to enter in their sap.

How one ought to begin to graffe.

YE may well begin to graff, (in cleaving the stock) at *Christmas* or before, according to the coldnesse of the time, and principally the Healme or great Chery, Peares, Wardens, or forward fruit of Apple: and for the Medlars it is good to tarry until the end of *January* and *Febuary*, until *March*, or untill such time as ye shall see trees begin to bud and spring.

When it is good graffing the wild stocks.

IN the spring time it is good graffing the wild stocks (which be great) betwixt the bark and the tree, such stocks as he of fast-tarrieth longest to be graft: for they do not shew or put forth sap so soon as the others.

Marke if the tree be forward or not.

YE ought to consider alwaies, whether the tre be forward or not, or to be graffed soon or lateward, and to give him a graff of the like hast or slownesse: even so ye must marke the time, whether it be slow or forward.

When one will graffe, what necessaries he ought to be furnished withall.

WHensoever ye goe to graffing, see ye be first furnished with graffes, clay and mosse clothes, or barkes of sallow to bind likewise withall. And ye must have a small saw, and a sharpe knife, to cleave and cut graffes withall. But it were much better if you should cut your graffes with a great penknife or some other like sharpe knife, having also a small wedge of hard wood, or of Iron, with a hooked knife, and also a smal mallet. And your wild stocks must be well rooted before ye do graffe them: and be not so quick to deceive your selves, as those which do graffe and plant all at one time; yet they shall not profit so wel; for where the wild stock hath no substance in himselfe, much lesse to give unto the other graffes, for when a man thinkes sometime to forward himselfe, he doth hinder himselfe.

Of graffes not prospering the first year.

YE shall understand, that very hardly your graffes shall prosper after, if they doe profit or prosper well in the first yeare; for whensoever (in the first yeare) they profit well, it were better to graffe them somewhat lower then to let them so remaine and grow.

For to graffe well and sound.

AND for the best understanding of graffing in the cleft, ye shal first cut away all the small Clons above the body of the stock beneath and before ye begin to cleave your stock dresse and cut your graffes some what thick and ready and then cleave your stock and as your cleft is small or great (if need be) part it smooth within; then cut your incision of your graffes accordingly and set them in the cleft as even and as close as you can possibly.

How to trim your graffes.

YE may graffe your graffes full as long as two or three trunchions, or cut graffes, which ye may likewise graffe withall very well, and be as good as those which come of old wood and often times better, as to graffe a bough; for often it so happeneth a man shall find of Oylets or eyes hard by the old slender wood ye

better it were to cut them off with the old wood and chuse a better and fairer place at some other eye in the same graffe, and to make your incision there under, as aforesaid, and cut your graffes in making the incision on the one side narrow, and on the other side broad, and the inner side thin, and the out side thick because the outside (of your graffe) must joyn within the cleft, with the sap of the barke of the wild stock, and it shall be so set in. See also that ye cut it smooth as your clefts are in the stock, in joynting at every place both even and close, and especially the joynts or corners of the graffes on the head of the stock, which must be well and clean pared before, and then set fast therein.

How to cut graffes for Cheries and Plums.

IT is not much requisite in the Healme Chery, for to joyne the graffes (in the stock) wholly throughout, as it is in other, or to cut the graffes of great Cheries, Damsons, or Plums, so thin, and plaine as ye may other graffes, for those sorts have a greater sap or pith within, the which ye must alwaies take heed in cutting it too nigh on the one side, or on the other, but at the end thereof chiefly to be thin cut and fine.

Note also.

AND yet if the said incision be straighter and closer on the one side then on the other side, pare it where it is most meet, and where it is to straight open it with a wedge of Iron, and put in a wedge of the same wood about in the cleft, and thus may ye moderate your graffes as ye shall see cause.

How in graffing to take heed that the barke do not rise.

IN all kind of cutting your graffes, take heed to the barke of your graffes that it do not rise (from the wood) on no side thereof and specially on the outside, therefore ye shall leave it thicker then the inner side: Also ye must take heed when as the stocks do wreath in cleaving, that ye may joyne the graffe therein accordingly: the best remedy therefore is to cut it smooth within, that the graffe may joyne the better: ye shall also unto the greatest stock chuse for them the greatest graffes.

How to cut your stocks.

HOw much the more your stock is thin and slender, so much more ye ought to cut him lower, and if your stock be as great as your finger, or three hearts, ye may cut him a foot or halfe a foot from the earth, and dig him about, and dung him with Goats

dung

dung, to help him withall, and graffe him but with one graffe of Cion.

If the wild ſtock be great and ſlender.

IF your wild ſtock be great, or as big, as a good ſtaffe, ye ſhall cut him round off, a foot or thereabouts above the earth, then ſet two good graffes in the head or cleft thereof.

Trees as great as one arme.

WHen your ſtocks is as great as your arme, ye ſhall ſaw him off three or four foot, or thereabouts, from the earth, for to defend him, and ſet in the head three graffes, two in the cleft, and one betwixt the bark and the tree, on ſide that where ye may have moſt ſpace.

Great trees as big as your leg

IF the ſtock be as bigge as your leg, or thereabouts, ye ſhall ſaw him faire and cleave off, four or five foot high from the earth, and cleave him acroſs (if ye will) and ſet in foure graffes in the cleft thereof, and other two graffes betwixt the barke and the tree.

When the graffes be pinched with the ſtocke.

YE muſt for the better underſtanding, mark the graffe betwixt the bark and the tree; for when the ſap is full in the wood of wild ſtocks being great, then they do commonly pinch or wring the graffes too ſore, if ye do not put a ſmall wedge of green wood in the cleft thereof, to help them withall againſt ſuch danger.

How ye ought to cleave your ſtocke.

WHenſoever ye ſhal cleave your wild ſtock, take heed that ye cleave them in the mideſt of the heart or pith but a little one the one ſide, which ye ſhall think good.

How to graffe the braunches of great trees.

WHenſoever ye would graffe great trees, as great as your thigh or greater, it were much better to graffe the braunches thereof, then the ſtock or body, for the ſtock will not before the graffes ſhall cover the head.

How to cut braunches old and great.

IF the braunches be too rude, and without order, the beſt ſhall be to cut them al off, and within three or four yeares after they ſhall bring fair new Cions againe, and then ſhall be beſt to graffe

them, and cut off all the ſuperfluous and ill branches thereof.

How ye ought to bind your greffes throughout for feare of winds.

AND when your greffes ſhall be grown, ye muſt bind them, for feare of ſhaking of the winde; and if the tree be free and good of himſelfe, let the Cions grow ſtill, and ye may greffe any part or branch ye will in the cleft, or betwixt the barke and the tree, either in the Scutchion, if your bark be fair and looſed.

To ſet many greffes in on cleft.

WHen ye will put many greffes in one cleft, ſee that one inciſion (of your graff) be as large as the other, not to be put in to the cleft ſo ſlightly and raſhly, and that one ſide thereof be not more open then the other, & that theſe greffes be all of one length it ſhall ſuffice alſo, if they have three eyes one each greffe without the joynt thereof.

How to ſaw your ſtock before ye cleave him.

IN ſawing your ſtock, ſe that ye tear not the bark about the head thereof, then cleave his head with a long ſharpe knife, or ſuch like, and knock your wedge in the midſt thereof, (then pare him on the head round about) and knock your wedge in ſo deep till it open meet for your greffes, but not ſo wide; then holding in one hand your greffe, and in the other hand your ſtock, ſet your greffe in cloſe, bark to bark, and let your wedge be great above at the head, that ye may knock him out fair and eaſily again.

If the ſtock cleave to much or the barke do open.

IF the ſtock do cleave too much or open the barke with the wood too low, the ſoftly open your ſtock with your wedge, and ſee if your inciſion of your greffe be meet and juſt according to the cleft; if not, make it untill it be meet, or elſe ſaw him off lower.

How greffes never lightly take.

ABove all things ye muſt conſider the meeting of the two ſaps, betwixt the graff and the wild ſtock, which muſt be ſet in juſt one with another: for ye ſhal underſtand, if they do not joyne, and the one delight with the other, being even ſet, they ſhall never take together, for there is nothing to joyn there increaſe, but onely the ſap, recounting the one time againſt the other.

How to ſet the greffes right in the cleft.

WHen the barke of the ſtock is thicker then the greffe ye muſt take good heed, of the ſetting in of the greffe in

the cleft, to the end that his ſap may joyne right with the ſap of the ſtock, on the inſide; and ye ought likewiſe to conſider of the ſap of the ſtock, if ye do ſurmount the graffs on the ought ſides of the cleft too much, or not.

Of ſeting in the graffes.

ALſo ye muſt take good heed, that the graffes be well and cleanly ſet in, and joyn cloſe upon the head of the ſtock. Likewiſe that the inciſion which is ſet in the cleft, do joyne very well within on both ſides, but ſome times it may do ſervice, when as the graffes do draw two much from the ſtock, or the ſtock alſo on the graffes do put forth.

Note alſo.

WHen the ſtock is rightly cloven, there is no danger in cuting the inciſion of the graffes, but a little ſtraight rebeated to the end thereof, that the ſap may joyne one whit the other, the better and cloſer together.

How you ought to draw out your wedge.

WHen your graffes ſhal be wel joynted with the ſtocks, draw your wedg faire and ſoftly forth, for feare of diſplacing your graffes, you may leave within the cleft a ſmall wedge of ſuch green wood as is a foreſaid, and ye ſhall cut it off cloſe by the head of your ſtock, and ſo couer it with a bark as followeth.

To cover your cleft on the head.

WHen your wedge is drawen forth, put a green pill of thick barke of Willow, Crab, or Apple, upon your clefts of the ſtocks, that nothing do fall between: then cover all about the cleft on the ſtock head, two fingers thick with good Clay, or nigh about that thickneſſe, that no wind nor raine may enter. Then cover it round with good Moſs, and then reath it over with clothes, or peels of Willow, Brier or Oziars, or ſuch like, then bind them faſt and ſtick certain long pricks on the graffes head amongſt your Cions, to defend them from the Crows, Jayes, or ſuch like

How ye ought to ſet to the binding of your graffes.

BUt alwaies take good heed to the binding of your heads that they wax not ſlack or ſhog, neither on the one ſide or other, but remaine faſt upon the Clay, which Clay muſt remaine faſt (likewiſe on the ſtockhead) under the binding thereof; wherefore the ſaid Clay muſt be moderate in ſuch ſort as followeth.

How ye ought to temper your Clay.

THe beſt way therefore is to try your clay betweene your hands, for ſtones and ſuch like, and ſo to temper it as ye ſhall think good, if ſo it require of moiſtneſſe or dryneſſe, and to temper it with the haire of beaſts; for when it dryeth, it holdeth not (otherwiſe) ſo well one the ſtock, or if ye kneed of Moſſe therewith, or mingle Hay thin therewith: ſome do judge that the Moſſe doth make the tree moiſt; But I think (ſaith he) that commeth of the diſpoſition of place.

To binde your graffe head.

WHen ye ſhall bind or wrap your graffe head with a band, take ſmall thornes, and bind them within, for to defend your graffes from Kiets or Crowes, or danger of other fowels, or pr prick ſharp white ſticks thereon.

The ſecond way to graffe high braunches or trees.

THe ſecond manner to graffe, is ſtrange enough to many: This kind of graffing is on the tops of branches of Trees: which thing to make them grow lightly, is not ſo ſoone obtained: whereſoever they be graffed, they do onely required a faire young wood: a great Cion or twig, growing higheſt in the tree top, which Cions ye ſhall chuſe to graffe on, of as many ſorts of fruit as ye will, as ye ſhal think good, which order followeth.

TAke graffes of other ſorts of tree which you will graffe in the top thereof then mount the top of the trees which ye would graffe, and cut off the tops of all ſuch branches, or as many as ye would graffe on, and if they be greater then the graffes, which ye would graffe, ye ſhall cut and graffe them lower as ye do the ſmall wild ſtock aforeſaid, But if the Cions that you cut be at great as your graffe that you graff on, ye ſhal cut them lower betwixt the old wood and the new, or a little more higher or lower then cleave a little, and chuſe your graffes in the like ſort, which ye would plant, whereof ye ſhall make the inciſion more, with the brak on both ſides like, and as thick on the one ſide as the other, and ſet ſo juſt in the cleft, that the barke may be even and cloſe, as wel above as beneath, on the one ſide as the other, and ſo binde him as is aforeſaid. It ſhall ſuffice that every graffe have an oylet; or eye or two at the moſt, without the joyne, for to leave them too long it ſhall not be good, and ye muſt dreſſe it with Clay and Moſſe, and bind it as is aforeſaid. And likewiſe ye may graffe theſe, as

ye do the little wild ſtocks, which ſhould be as great as your graffe, and to graffe them, as ye do thoſe which Sap like on both ſides, but then ye muſt graffe them in the earth, as three fingers of, or thereabouts.

The manner of Graffing of graffes which may be ſet betwixt the bark and the Tree.

To graffe betwixt the bark and the Tree.

THis manner of graffing is good, when trees do begin to enter into their Sap, which is about the end of *Febauary*, unto the end of *April*, and eſpecially on great wild ſtocks, which be hard to cleave, ye may ſet in foure or five graffes in the head thereof, which graffs ought to be gathered afore, and keepe cloſe in the earth till then, for by that time aforeſaid, ye ſhall ſcantly find a tree, but that he doth put forth or bud, as the Apple called *Capendo* or ſuch like. Ye muſt therefore ſaw theſe wild ſtocks, more charily, and higher, ſo they be great and then cut your graffs which ye would ſet together, ſo as you would ſet them upon the wild ſtock that is cleft, as is aforeſaid. And the incloſed of your graffe muſt not be ſo long, or ſo thick, and the bark a little at the end thereof muſt be taken away, and made in manner as a Launcet of Jron, and as thick on the one ſide as the other.

How to dreſſe the head, to plant the graffes betwixt the bark and the tree.

ANd then your graffes be ready cut, then ſhall ye cleanſe the head of your ſtock, and pare it with a ſharp knife, round about the barke thereof; to the end your graffes may joyne the better thereon; then by and by take a ſharp pen-knife, or other ſharpe pointed knife, and thruſt it down betwixt the bark and the ſtock, ſo long as the inciſion of your graffes be, then put your graffs ſoftly downe therein in the hard joynt; and ſee that is do ſit cloſe upon the ſtock head.

How to cover the head of your ſtock.

WHen as ye have ſet in your graffes, ye muſt then cover it well about with good tough Clay and moſſe, as is ſaid of the others, and then you muſt incontinent environ or compaſſe your head with ſmall thorny buſhes, and bind them faſt there on all about for fear of great birds, and likewiſe the wind.

Of the manner of graffing in the Shield or Scutchion.

THe forth manner to graffe, which is the laſt, is to graffe in the Scutchion, in the ſap, in Summer, from about the end of the Month of *May*, unrill *Auguſt*, when as the tree be yet ſtrong in ſap and leaves, for otherwaies it cannot be done, the beſt time is in *June* and *July*, ſo it is ſome yeares when the time is very dry, that ſome trees do hold their ſap very long, therefore ye muſt tarry till it returne.

For to graffe in Summer ſo long as the trees be full leaved.

FOr to begin this manner of graffeing well, ye muſt in Summer when the trees be almoſt ful of ſap, and when they have ſprong forth new ſhouts, being ſome what hardned, take a branch thereof in the top of the tree, the which ye will have graffed, and chuſe the higheſt and principalleſt branches, with out cutting it from the old wood, and chuſe thereof the principalleſt oylet or eye or buding place, of each branch one, within which oylet or eye ye ſhal begin to graffe as followeth.

The big Cions are beſt to graffe.

PRincipall ye muſt under ſtand, that the ſmalleſt and naughty oylets or buds of the ſaid Cions be not ſo good to graffe, therefore chuſe the greateſt and beſt ye can find; firſt cut off the leaſe hard by the oilet, then ye ſhal trench or cut (the length of a barley corne (beneath the oylet round about the bark, hard to the wood, and ſo likewiſe above: then with a ſharp point of a knife, ſlit it down half an inch beſides the oilet or bud, and with the point of a ſharp knife ſaftly raiſe the ſaid ſhield or Scutchion round about, with the oylet in the middeſt, and all the ſap belonging thereunto.

How to take of the ſhield from the wood.

ANd for the better raiſing your ſaid ſhield or Scutchion from the wood, after that ye have cut him round about, and then ſlit him down, without cutting any part of the wood within, ye muſt then raiſe the ſaid next you that is ſlit, and take the ſame ſhield betwixt your fingers and thumb, and pluck or raiſe it ſaftly off, with out breaking or bruſing any part thereof, and in the opening or plucking it off, hold it with your finger hard on the wood, to the end the ſap of the oylet may remaine in the ſhield; for if it go off (in plucking it) from the barke, and ſtick to the wood, your Scutchion is nothing worth.

To know your Scutchion or ſhield when he is good or bad.

AND for the more eaſie underſtanding, if it be good or bad, when it is taken from the wood, looke within the ſaid ſhield, and if ye ſhall ſee it crack, or open within, then it is of no value, for the chiefe ſap doth remaine behind with the wood, which ſhould be in the ſhield, and therefore ye muſt chooſe and cut another ſhield which muſt be good and ſound, as aforeſaid, and when your Scutchion ſhall be wel take off from the wood, then hold it dry by the oylet or eye betwixt your lips, until you have cut and taken off the breake from the other Cion or branch, and ſet him in that place, and look that ye doe not foule or wet it in your mouth.

Of young trees to graffe on.

BUt ye muſt graffe of ſuch trees, as be from the bigneſſe of your little finger, unto as great as your arme, having their barke thin and ſlender, for great trees commanly have their barke hard and thick, which ye cannot well graffe this way, except they have ſome branches with a thin ſmooth barke, meet for, this way to be done.

How to ſet or plant your ſhield.

YE muſt quickly cut off round the bark of the tree that ye will graffe on, an a little longer then the ſhield that ye ſet on, becauſe it my joyne the ſooner and eaſier, but take heed that in cutting off the barke, ye cut not the wood within.

Note alſo.

AFter the inciſion once done, ye muſt then cover both the ſides or ends well and ſoftly with all, with a little bone or horn, made in manner like a thin skin, which ye ſhall lay al over the joynts or cloſings of the ſaid ſhield, ſomewhat longer and larger, but take heed for hurting or cruſhing the bark thereof.

How to lift up the barke, and to ſet your ſhield on.

THis done, take your ſhield or Schutchion, by the oylet or eye that he hath, and open him fair and ſoftly by the two ſides, and put them ſtraight way on the other tree, whereas the bark is taken of, and joyne him cloſe barke to bark thereon; then plain it ſoftly above and at both ends with the thin bone, and that they joyne above and beneith bark to bark, ſo that he may feed well the branch of that tree.

How

How to bind on your ſhield.

THis done, ye muſt have a wreath of good hemp, to bind the ſaid ſhield on his place: the manner to bind it is thus, ye ſhall make a wreath of hempe to gether as great a Gooſe-quill, or there abouts, or according to the bigneſs or ſmallneſs of your tree: then take your hempe in the midſt, that the one halfe may ſerve for the upper halfe of the ſhield, in winding and croſſing (with the hemp) the ſaid ſhield on the branch of the tree, but ſee that ye bind it not too ſtraight, for it ſhall let him faorm taking or ſpringing, and likewiſe their ſap cannot eaſily come to paſſe from the one to the other: and ſee alſo that wet come not to your ſhield, nor likewiſe the hemp that ye bind it withal: Ye ſhal begin to bind your Scutchion firſt behind in the midſt of your ſhield, in comming ſtil lower and lower, and ſo recover under the oylet and taile of your ſhield, binding it nigh together, without recovering of the ſaid oylet, then ye ſhall returne againe upward, in binding it backward to the mideſt where ye began. Then take the other part of the hemp, and bind ſo likewiſe the upper of your ſhield, and encreaſe your hemp as ye ſhall need, ſo returne againe backward, and ye ſhall bind it ſo, till the fruits or clefts be covered (both above and beneath) with your ſaid hemp, except the oylet and his talle, the which ye muſt not cover, for that taile will ſhed apart, of the ſhield do take.

On one tree ye may graffe or put two or three ſhields.

YE may very well if ye will, on every tree graffe two or three ſhields, but ſee that one be not right againſt the other, nor yet of the one ſide of the tree; let your ſhields ſo remaine bound on the tree, one month or more, after they be graffed, and the greater the tree is the longer to remaine, and the ſmaller the leſſer time.

The time to unbind your ſhield.

AND then after one month, or ſix weeks paſt, ye muſt unbind the ſhield, or at the laſt cut the hemp behind the tree, and let ſo remaine the Winter next following, and then about the month of *March* or *Aprill* if ye will, or when ye ſhall ſee the ſap of the ſhield put forth, then cut the branch off three fingers above the ſhield, or there abouts.

How to cut and governe the braunches graffe one the trees.

THen in the next yeare after that the Cions ſhall be well ſtrengthened, and when they do begin to ſpring, then ſhall ye cut

them all hard off, by the ſhield above; for if he had cut them ſo nigh in the firſt yeare, when they begin firſt to ſpring or bud, it ſhould greatly hinder them againſt their increaſe of growing: alſo when theſe Cions ſhall put forth a fair wood, ye muſt bind and ſtay them in the mideſt, fair and gently with ſmall wands, or ſuch like, that the wind and weather hurt them not. And after this manner of graffing, which is practiſed in the ſhield or Scutchion way ye may eaſily graffe the White Roſe on the Red; and likewiſe ye may have Roſes of divers colours and ſorts, upon one branch or root. This I thought ſufficient and meet to declare of this kind of graffing at this preſent.

CHAP. VI.

This Chapter treateth of tranſplanting or altering of Trees.

The ſooner ye tranſplant or ſet them, it ſhall be the better

YE ought to tranſplant or ſet your trees from *Alhallontide* unto *March*, and the ſooner the better, for as ſoon as the leaves are fallen from the trees, they be meet for to plant, if it be not in a very cold or moiſt place, the which then it were beſt for to tarry unto *January* or *February*: to plant in the froſt is not good.

To plant or ſet towards the ſouth, or ſunnie place is beſt.

AFore ye do plack up your trees for to plant them, if ye will marke the South ſide of each tree, that when ye ſhal re-plant them, ye may ſet them again as they ſtood before, which is the beſt way as ſome do ſay. Alſo if ye keep them a certaine time, After they be taken out of the earth, before ye plant them again, they will rather recover there in the earth, ſo they be not wet with rain, nor otherwiſe; for that ſhall be more contrary to them, then the great heat or drought.

How to cut the branches of trees, before they be ſet.

WHenſoever ye ſhall ſet or re-plant your tree, firſt ye muſt cut off the boughes, and eſpecially thoſe which are great branches, in ſuch ſort that ye ſhall leave the ſmall twigs or ſprings no

the

the ſtocks of your branch, which muſt be but a ſhaftment long, or ſome what more, or elſe, according as the tree ſhall require, which ye do ſet.

Apple trees commonly muſt be diſbranched before they be replanted or ſet.

AND chiefly the Appel trees, being Graffed or not Graffed, do require to be disbranched before they be ſet again; for they ſhall proſper thereby much better: the other ſort of trees may wel paſſe unbranched, if they have not too great or large branches: and therefore it ſhall be good to tranſplant or ſet as ſoone after as the graffes are cloſed, on the head of the wilde ſtock: as for ſmall trees, which have but one Cion twig, it needs not to cut them above, when they are replanted or removed.

All wild ſtocks muſt be disbranched when they are replanted or ſet.

ALl wild trees or ſtocks, which ye think for to graffe on, ye muſt firſt cut off all their branches before ye ſet them again: alſo it ſhall be good, alwaies to take heed in replanting your trees, that ye do ſet them again in as good or better earth then they were in before, and ſo every Tree according as his nature doth require.

What trees love the faire Sun, what trees the cold aire.

COmmonly the moſt part of trees do love the Sun at Noone, and yet the South wind (*or vent d'oval*) is a very contrary againſt their nature, and ſpecially the Almond tree, the Apricot, the Mulbry tree, the Fig tree, and the Pomgranade tree. Certaine other trees there be which love cold aire, as theſe: The Cheſnut tree, the wild and eager Chery tree, the Quince tree, & the Damſon or plum tree, the Walnut loveth cold aire & a ſtony white ground. Peare tree love not greatly plain places, they proſper wel enough in place cloſed with walls, or high hedges, and ſpecially the Pear called *bon Chriſten*.

Of many ſorts and manner of trees, following their nature.

THe Damſons or plum tree doth love cold fat earth, and clay withall, the (Healme) great Cheryl doth love to be ſet or planted upon clay. The Pine tree loveth light earth, ſtoney and ſandy. The medlare commeth wel enough in all kind of grounds, and doth not hinder his fruit, to be in ſhadow and moiſt places. Hafel nut trees love the place to be cold, leane, moiſt and ſandy; Ye ſhall underſtand, every kind of fruitfull tree doth

love

love, and is more fruitful in one place, then another, as according unto their nature. Nevertheleſſe yet we ought to nouriſh them (al that we may) in the place where we ſet them in, in taking them from the place and ground they were in. And ye muſt alſo conſider when one doth plant them, of the great and largeſt kind of trees, that every kind of tree may proſper and grow, and it is to be conſidered alſo, if the trees have commonly grown afore ſo large in the ground or nor; for in good earth the trees may wel proſper and grow, having a good ſpace one from another, more then if the ground were lean and naught.

How to place or ſet trees at large.

IN this thing ye ſhall conſider, ye muſt give a competent ſpace from one tree to another, when as ye make the holes to ſet them in, not nigh, nor that one tree touch the other. For a good tree planted, or ſet wel at large, it profiteth oftentimes more of fruit then three or foure trees, ſet too nigh together. The greateſt and largeſt trees commonly are Walnuts, and Cheſtnuts, if ye plant them ſeverally in rank, as they do commonly grow upon high waies, beſides hedges and fields; they muſt be ſet 35 foot aſunder, one from another, or thereabouts, but if ye wil plant many ranks one place to gether, ye muſt ſet them the ſpace of 45 foot one from another, or thereabouts, and ſo farre ye muſt ſet your ranks one from another. For the Pear trees and Apyle trees, and other ſorts of trees which may be ſet of this largeneſſe one from the other, if ye do plant onely in ranks by hedges in the fields or otherwiſe, it ſhall be ſufficient of 20. foot one from another. But if ye will ſet two ranks upon the ſides of your great Allyes in gardens, which be of ten or twelve foot bread, it ſhall be then beſt to give them more ſpace the one from the other in each rank, as about 25. foot; alſo ye muſt ſet your Trees right the one againſt the other, but intermedling or between every ſpace, as they may beſt grow at large, that if need be, ye may plant of other ſmaller trees between, but ſee that ye ſet them not too thick. If ye liſt to ſet or plant all your trees of one bigneſſe, as of young trees like rods, being Peare trees, or Apple trees, they muſt be ſet a good ſpace one from another, as of twenty or thirty foot in ſquare, as to ſay, from one rank to another. For to plant or ſet of ſmaler trees, as Plum trees, Apple trees, of like bigneſſe, it ſhall be ſufficient for them fourteen or fifteene foot ſpace in quarters. But if ye will plant or ſet

two

two ranks, in your Allies in Gardens, ye muſt deviſe for to proportion it after the largeneſſe of your ſaid Allies. For to plant or ſet eager or ſower Cherry trees, this ſpace ſhall be ſufficient enough the one from the other, that is, of ten or twelve foot, and therefore if you make of great or large Allies in your Gardens, as of ten foot wide, or there abouts, they ſhall come well to paſſe, and ſhall be ſufficient to plant your trees, of nine or ten foot ſpace: and for the other leſſer ſort of trees, as of Quince trees, Figge trees, Nut trees, and ſuch like, which be not commonly planted, but in one ranke together.

Ordering your trees.

When that you plant or ſet ranks, or every kind of trees together, you ſhall ſet or plant the ſmalleſt towards the Sun, and the greateſt in the ſhade, that they may not annoy or hurt the ſmall, nor the ſmall the great. And whenſoever ye will plant or ſet Pear trees, and Plum trees (in any place) the one with another, better it were to ſet the Plum trees next the Sun; for the Peares will dure better in the ſhade. Alſo ye muſt underſtand, when ye ſet or plant any ranks and trees together, ye muſt have more ſpace betwixt your ranks and trees, (then when you ſet but one ranke) that they may have room ſufficient on every ſide.

Ye ſhall alſo ſcarcely ſet or plant Pear trees, or Apple trees, or other great Trees, upon dead or Moſſie barren ground unſtirred, for they increaſe thereon to no purpoſe. But other leſſer trees very well may grow, as Plum trees, and ſuch like: now when all the ſaid things above be conſidered, you ſhall make your holes according to the ſpace that ſhall be required of every tree that you ſhall plant or ſet, and alſo the place meet for the ſame ſo much as you may convenient, ye ſhall make your holes large enough; for you muſt ſuppoſe the tree you do ſet, hath not halfe of his roots he ſhall have hereafter, therefore ye muſt help him and give him of good fat earth, (or dung) all about the roots when as ye plant him. And if any of the ſame roots be too long, and bruiſed and hurt, you ſhall cut them clean off ſlope-wiſe, ſo that the upper ſide of each root ſo cut, may be longeſt in ſetting, and for the ſmall roots which come forth all about thereof, you may not cut them off as the great roots.

How you ought to enlarge the holes for your trees when you plant them.

WHen as ye ſet your trees in the holes, you muſt then enlarge the roots in placing them, and ſee that they take all downwards, without turning any roots the end upwards; and ye muſt not plant or ſet them too deep in the earth, but as you ſhall ſee cauſe. It ſhall be ſufficient for them to be planted or ſet (half a foot, or thereabouts) in the earth, ſo that the earth be above all the roots half a foot or more, if the place be not very burning and ſtony.

Of dung and good earth, for your Plants and trees.

AND when as you would replant or ſet, you muſt have of good fat earth or dung, well mingled with a part of the ſame earth whereas you took your plants out of with all the upper creſts of the earth, as thick as you can have it: the ſaid earth which you ſhall put about the roots, muſt not be put too nigh the roots, for doubt of the dung being laid too nigh, which will put the ſaid roots in a heat, but let it be well mingled with the other earth, and well tempered in the holes, and the ſmalleſt and ſlendereſt Cions that turn up among thoſe roots, you may plant therewith very well.

If you have worms amongſt the earth of your roots.

IF there be worms in the fat earth or dung, that you put about your roots, you muſt mingle it well alſo with dung of Oxen or Kine, or ſleck'd Sope-aſhes about the root, which will make the worms to dye, for otherwiſe they greatly hurt the roots.

To digge well the earth about the tree roots.

ALſo you muſt dig well the earth, principally all round about the roots, and more often if they drie, then if they be wet, you muſt not plant or ſet trees when it raineth, nor let the earth be very moiſt about the roots. The trees that be planted or ſet in vallies, commonly proſper well by drought; and when it raineth, they that be on the hils are better by watering by drops then others; but if the place or ground be moiſt of nature, ye muſt plant or ſet your trees the deeper thereon.

The nature of the place.

ON high and drie places, you muſt plant or ſet your trees a little more deep, then in the vallies; and you muſt not fill the holes in high places, ſo full as the other, to the end that the rain may better moiſten them.

Of good earth.

YE shal understand, that of good earth commonly cometh good fruit; but in certain places (if that they might be suffered to grow) they would season the tree the better. Otherwise they shal not come to proof, nor yet have a good taste.

With what ye ought to binde your trees.

WHensoever your trees shal be replanted or set, ye must knock in (by the root) a stake, and bind your trees thereto for fear of the wind: and when they do spring, ye shal dresse them, and bind them with bands that may not break, which bands may be of strong soft herbs, as Bulrushes, or such like; or of old linnen clouts, if the other be not strong enough; or else ye may bind them with Oziars, or such like, but for fear of fretting or hurting your trees.

CHAP. VII.

This Chapter treateth of medicining and keeping the Trees when they are planted.

The first counsel is, when your trees be but plants (in drie weather) they must be watered.

THe young trees which be newly planted, must somtimes in Summer be watered when the time waxeth drie, at the least the first year after they be planted or set. But as for other greater trees which are wel taken & rooted a good time, ye must dig them all over the roots after *Alhallontide*, and uncover them four or five foot compasse about the root of the tree; & let them so lie uncovered until the latter end of Winter. And if ye do then mingle about each tree of good fat earth or dung, to heat and comfort the earth withal, it shal be good.

With what dung ye ought to dung your trees.

AND principally unto Mossie-trees, dung them with Hogs dung mingled with other earth of the same ground, & let the dung of Oxen be next about the roots; and ye shall also abate the Moss of the tree with a great knife of wood, or such like, so that ye hurt not the bark thereof.

When ye ought to uncover your trees in Summer.

IN the time of Summer, when the earth is scantly half moist, it shal be good to dig at the foot of the trees, all about the roots of

ſuch as have not been uncovered in the Winter before, and to mingle it with good fat earth: and to fill it again, and they ſhall do well.

When ye ought to cut or prune your trees.

AND if there be in your trees certain branches of ſuperfluous wood, that ye will cut off, tarrie until the time of the entering in of the ſap; that is, when they begin to bud, as in *March* and *April*: Then cut off as ye ſhall ſee cauſe, all ſuch ſuperfluous branches hrad by the tree, that thereby the other branches may proſper the better, for then they ſhal ſooner cloſe the ſap upon the cut-places then in the winter, which ſhould not do ſo well to cut them, as certain do teach which have not good experience. But for ſo much as in this time trees be entering into the ſap, as is aforeſaid; Take heed therefore in cutting then off your great branches haſtily, that through their great weight, they do not cleave or ſeparate the bark from the tree, in any part thereof.

How to cut your great branches, and when.

AND for the better remedie: Firſt you ſhall cut the ſame great branches half a foot from the tree, and after to ſaw the reſt clean hard by the bodie of the tree, then with a broad Cheſil, cut all clean and ſmooth upon that place, then cover it with Ox-dung. Ye may alſo cut them well in Winter, ſo that ye leave the trunk or branch ſomewhat longer, ſo as ye may dreſſe and cut them again in March and April, as is before-mentioned.

How ye ought to leave the great branches cut.

OTher things here are to be ſhewed of certain great and old trees onely, which in cutting the great branches thereof trunchion wiſe, do renew again, as Walnuts, Mulberry trees, Plum trees, Cherry trees, with others, which ye muſt disbranch the boughs thereof even after *Alhallontide*, or as ſoon as their leavs be fallen off, and likewiſe before they begin to enter into Sap.

Of trees having great branches.

THe ſaid great branches when ye ſhall disbranch them, ye ſhall ſo cut them off in ſuch Trunchions, to lengthen the tree, that the one may be longer then the other, that when the Cions be grown good and long thereon, ye may graffe on them again as ye ſhall ſee cauſe, according as every arme ſhall require.

Of

Of barrennesse of trees, the time of cutting ill branches, and of uncovering the roots.

SOmetimes a man hath certain old trees, which be almost spent; as of the Pear trees, and Plum trees, and other great trees, the which bare scant of fruit; but when as ye shall see some branches well charged therewith, then ye ought to cut off all the other ill branches and boughes, to the end that those that remain may have the more sap to nourish their fruit, and also to uncover their roots after *Alhallontide*, and to cleave the greatest roots thereof (a foot from the trunk) and put into the said clefts a thin slate of hard stone; there let it remain, to the end that the humour of the tree may enter out thereby, and at the end of Winter ye shall cover him again, with as good and fat earth as ye can get, and let the stone alone.

Trees which ye must help, an pluck up by the roots.

ALl sorts of trees which spring Cions from the roots, as Plum trees, all kind of Cherry trees, and small-Nut trees, ye must help in plucking their Cions from the roots in Winter, as soon as conveniently ye can, after the leaf is fallen. For they do greatly pluck down and weaken the said trees, in drawing to them the substance of the earth.

What doth make a good Nut.

BUt chiefly to plant these Cions, the best way is to let them grow and be nourished two or three years from the root and then to transplant them or set them in the Winter, as is aforesaid. The Cions which be taken from the foot of the Hasel tree make good Nuts, and be of much strength and virtue, when they are not suffered to grow too long from the root, or foot aforesaid.

Intermeddle with beasts, must be graffed again.

WHen certain graffes being well in sap, of three or four years, or thereabouts, be broken, or greatly endamaged with beasts, which have broken thereof, it shall little profit to leave those graffes so, but it were better to cut them, and to graffe them higher or lower than they were before. For the graffes shall take as well upon the new as old Cion, being graffed on the wild stock; but it shall not so soon close, as upon the wilde stock head.

How your wilde stocks ought not hastily to be removed.

IN the beginning when ye have graffed your graffes on the wilde stock, do not then hastily pluck up those Cions, or wilde stocks

so

ſo graffed, until you ſhal ſee the graffes put forth a new ſhoot, the which remaining ſtill, ye may graffe thereon again, ſo that your graffes in haſty removing may chance to die.

When to cut off the naughty Cyons from the wood.

WHen your graffes on the ſtocks ſhal put forth new wood, or a new ſhoot, as of two or three foot long, and if they put forth alſo of other ſmal ſuperfluous Cions (about the ſaid members or branches that ye would nouriſh) cut off all ſuch ill Cions hard by the head, in the ſame year they are graffed in, but not ſo long as the wood is in the ſap, till the Winter after.

How ſometimes to cut the principal members.

ALſo it is good to cut ſome of the principal members or branches, in the firſt year, if they have too many; and then again, within two or three years after, when they ſhall be well ſprung up, and the graffes well cloſed on the head of the ſtock, ye may trim or dreſſe them again, in taking away the ſuperfluous branches, if any there remain; for it is ſufficient enough to nouriſh a young tree to leave him one principal member on the head, ſo that he may be one of thoſe that have been graffed on the tree before; yea, and the tree ſhall be fairer and better in the end, then if he had two or three branches at the foot, But if the tree have been graffed with many great Cions, then ye muſt leave him more largely, according as ye ſhall ſee cauſe or need, to recover the clefts on the head of the ſaid graffe, or ſtock.

How to guide and governe the ſaid tree.

WHen that your trees do begin to ſpring, ye muſt order and ſee to them wel the ſpace of three or four years, or more, until they be wel and ſtrongly grown, in helping them above, in cutting the ſmal twigs and ſuperfluous wood, until they be ſo high without branches as a man, or more if it need be, and then ſee to them wel, in placing the principal branches, if need be, with forks or wands prickt right and wel about them at the foot, and to prune them, ſo that one branch do not approach too nigh the other, nor yet fret one the other, when as they do inlarge and grow, and you muſt cut off certain branches in the tree, whereas they are thickeſt.

A kinde of ſickneſſe in trees.

WHen certain trees are ſick of the Gall, which is a kinde of ſickneſſe that doth eat the bark, there you muſt cut it,

and take out all the same infection with a Chesil, or such like thing. This must be done at the end of Winter, then put on that infected place of Oxe dung, or Hogs dung, and bind it fast thereon with clouts, and wrap it with Oziars, so let it remain a long time, till it shall recover again.

Trees which have worms in the barke.

OF trees which have worms within their barks, whereas ye shal see a swelling or rising therein, there you must cleave the said bark unto the wood, to the end the humour may also distill out thereat, and with a little hook ye must pluck or draw out the said worms, with all the rotten wood that you can see; then shall ye put upon the said place, a plaister made of Ox dung, or Hogs dung mingled and beaten with Sage, and a little of unsleck'd Lime, then let it be well blended together, and spread it on a cloath, and bind it fast and close thereon so long as it will hold. The Lees of Wine shed or poured upon the roots of trees (the which be somwhat slick through the coldness of the earth) doth them much good.

Snails, Ants and Worms doth mar trees.

ALso ye must take heed of all manner of young trees, and specially of those graffes, the which many worms and flyes do endamage and hurt in the time of Summer; those are the *Snails*, the Pismires, or Ants: the field Snail which hurteth also all other sorts of trees that be great, principally in the time the Cuckow doth sing, and betwixt *April* and *Midsomer*, while they be tender. There be little beasts called Sowes, which have many leggs, and some of them be gray, some black, and some have a long sharp snout; which be very noysome, and great hurters of young graffes, and other young trees also; for they cut off in eating the tender top, (of the young Cions) as long as one finger.

How ye ought to take the said worms.

FOr to take them well, you must take heed and watch in the heat of the day (your young trees,) and where you shall see any, put your hand softly underneath, without shaking the tree, for they will sodainly fall when one thinks to take them; therefore so soon as ye can, (that they flye not away nor fall) take them (quickly on the Cion) with your other hand,

To

To keep Ants from young trees.

For to keep the young trees from Snailes and Ants, it shall be good to take Ashes & to mingle unsleckt Lime, beaten in powder therewith, then lay it all about the root of the tree, & when it raineth, they shall be beaten down into the Ashes and die: but ye must renew your Ashes after every rain from time to time; also to keep them moist, ye must put certain small vessels full of water at the foot of your said trees, and also the Lees of Wine, to be spread on the ground there all about. For the best destroying of the small snailes on trees, you must take good heed in the spring time before the trees be leaved; then if ye shall see as it were small warts, knobs or branches on the trees, the same will be snailes: Provide to take them away faire and softly, before they be full closed, and take heed that ye hurt not the wood or barke of the said trees, as little as ye can; then burn those branches on the earth, or all to tread them under your feet, and then if any do remain or renew, look in the heat of the day, and if you can see any, which will commonly be on the clefts or forks of the branches, and also upon the branches lying like tofts or tops together, then wrap your hands all over with old cloathes (and bind leaves beneath them, and above them) and with your two hands rub them down therein, and straight way fire it, if you do not quickly with diligence, they will fall, and if they fall on the earth, ye cannot lightly kill them, but they will renew again: these kind of worms are noisome Flies which be very strange, therefore take heed that they do not cast a certain redneſſe on your face and body; and whereas there be many of them, they be dangerous: it is strange to tell of these kind of Wormes if ye come under or among the trees whereas be many, they will cast your face and hand (your covered body, as your neck, or breſt and armes) full of small spots, some red, some black, some blewish, which will so tingle and trouble you like Nettles, sometimes for a day, or a day and a night after: they be most on Plum-trees and, Apple-trees, nigh unto moist places, and ill airs: yet nevertheleſſe by the grace of God there is no danger, (that I understand) to be taken by them. Ye shall understand, that if it be in the evening, or in the morning, when it raineth, they remaine about the graffing place of the tree, therefore it will be hard to find them, because they are so small, Moreover if such branches do remain in the upper part of the boughes or tree

you

ye shall put drie straw under the boughes, then with a wisp on a poles end, first on all and burn them.

A note in Spring time of Fumingations.

HEre is to be understood and noted, that in the Spring time only, when trees do begin to put forth leaves and blossoms ye must then alwaies take heed unto them, for to defend them from the frost (if there come any) with Fumigations or smoke, made on the wind side of your Orchards (or under your trees) with straw, hey, drie chaffe, dry Ox dung or saw-dust dried in an Oven, or Tanners Oze dried likewise, or *Galbanum*, or old shooes, thatch of houses or haie, and such like, one of these to be mingled with the other: all these be good against the Frost in the Spring time, and specially good against the East wind, which breedeth (as some say) the Caterpiller worme.

To defend trees from the Caterpiller.

SOme do defend their trees from the Caterpiller, when the blossoming time is dried (if there be no frost) by casting of water, or salt water, every second or third day upon their trees (with instruments of the same, as with Squirts of Wood or Brasse, or such like) for in keeping of them moist, the Caterpiller cannot breed thereon: this experience have I known proved of late to be good. For to conclude, he that will set or plant trees, must not passe for any paines, but have a pleasure and delight therein, in remembring the great profit that commeth thereby: Against scarcenesse of Corne, fruit is a good stay for the poor, and often it hath been seen, one Acre of Orchard ground, worth forty Acres of Wheate ground.

HEre

To keep Ants from young trees.

For to keep the young trees from Snailes and Ants, it shall be good to take Ashes & to mingle unsleckt Lime, beaten in pouder therewith, then lay it all about the root of the tree, & when it raineth, they shall be beaten down into the Ashes and die: but ye must renew your Ashes after every rain from time to time; also to keep them moist, ye must put certain small vessels full of water at the foot of your said trees, and also the Lees of Wine, to be spread on the ground there all about. For the best destroying of the small snailes on trees, you must take good heed in the spring time before the trees be leaved; then if ye shall see as it were small warts, knobs or branches on the trees, the same will be snailes: Provide to take them away faire and softly, before they be full closed, and take heed that ye hurt not the wood or barke of the said trees as little as ye can; then burn those branches on the earth, or all to tread them under your feet, and then if any do remain or renew, look in the heat of the day, and if you can see any, which will commonly be on the clefts or forks of the branches, and also upon the branches lying like tofts or tops together, then wrap your hands all over with old cloathes (and bind leaves beneath them, and above them) and with your two hands rub them down therein, and straight way fire it, if you do not quickly with diligence, they will fall, and if they fall on the earth, ye cannot lightly kill them, but they will renew again: these kind of worms are noisom Flies which be very strange, therefore take heed that they do not cast a certain redneſſe on your face and body; and whereas there be many of them, they be dangerous: it is strange to tell of these kind of Wormes if ye come under or among the trees whereas be many, they will cast your face and hand (your covered body, as your neck, or breſt and armes) full of small spots, some red, some black, some blewish, which will so tingle and trouble you like Nettles, sometimes for a day, or a day and a night after: they be most on Plum-trees and, Apple-trees, nigh unto moist places, and ill airs: yet nevertheleſſe by the grace of God there is no danger, (that understand) to be taken by them. Ye shall understand, that if it be in the evening, or in the morning, when it raineth, they remaine about the graffing place of the tree, therefore it will be hard to find them, because they are so small, Moreover if such branches do remain in the upper part of the boughes or tree

you

ye shall put drie straw under the boughes, then with a wisp on a poles end, first on all and burn them.

A note in Spring time of Fumingations.

HEre is to be understood and noted, that in the Spring time only, when trees do begin to put forth leaves and blossoms ye must then alwaies take heed unto them, for to defend them from the frost (if there come any) with Fumigations or smokes, made on the wind side of your Orchards (or under your trees) with straw, hey, drie chaffe, dry Ox dung or saw-dust dried in an Oven, or Tanners Ozedried likewise, or *Galbanum*, or old shooes, thatch of houses or haie, and such like, one of these to be mingled with the other: all these be good a gainst the Frost in the Spring time, and specially good against the East wind, which breedeth (as some say) the Caterpiller worme.

To defend trees from the Caterpiller.

Some do befend their trees from the Caterpiller, when the blossoming time is dried (if there be no frost) by casting of water, or salt water, every second or third day upon their trees (with instruments of the same, as with Squires of Wood or Brasse, or such like) for in keeping of them moist, the Caterpiller cannot breed thereon: this experience have I known proved of late to be good. For to conclude, he that will set or plant trees, must not passe for any paines, but have a pleasure and delight therein, in remembring the great profit that commeth thereby: Against forcenesse of Corne, fruit is a good stay for the poor, and often it hath been seen, one Acre of Orchard ground, worth fore Acres of Wheate ground.

H Here

Here followeth a little Treatise, how one may Graffe & Plant artificially, and Destrously, and to make many things very strange in Gardens.

HOw to graffe a subtile way, take one pyen or eye of a Graffe, slit it round above and beneath, and set then behind down right, wreath him off, and set him upon another Cion, as great as he is, then dresse him as is afore said, and he shall grow and bare.

To graffe one Vine upon another.

FOr to graffe one Vine upon another, ye shall cleave him as ye do other trees, and then put the Vine graffe in the cleft, then stop him close and well with wax, and so bind him, and he shall grow.

If a tree be long without fruit.

YE shal uncover his root, and make a hole with a Piercer, or smal Anger, in the greatest root he hath, without pearsing through the roote, then put in a pin (in the said hole) of dry wood (as Oak or Ash) and so let it remaine in the said hole, and stop it close again with wax, and then cast earth and cover him againe, and he shall beare the same yeare.

For to have Peaches two months before others.

TAke yoube Cions of a Peach tree that doth soone bloome in the Spring time, and graffe them upon a franke Mulbery tree, and he shall bring forth Peaches two months before others.

To have Damsons or other Plums until Allhallowtide.

FOr to have Damsons all the Summer long until *Allhallowtide*, and of many other kind of fors likewise, ye shall graffe

them upon the Goosebery tree, upon the Franck-Mulberry tree, and upon the Cherry tree, and they shall endure upon the trees till *Alhallantide*.

To make Medlars, Cherries, and Peaches in eating [illegible] like spice.

FOr to make Medlars, Cherries and Peaches, to tast in the eating pleasant like spice, the which ye may also keepe until new come againe: ye shall graffe them upon the franke Mulberry tree, as I have afore declared, and in the graffing ye shall wet them in Hony, and put a little of the powder of some good spices, as a powder of Cloves, and Cinnamon, or Ginger.

To make a Muscadell taste.

FOr to make a Muscadel taste, take a Gouge or Chesil of Iron, (and cut your sap round [illegible]) then put in your Gouge or Chesil, under your sap on your Clon, [illegible] three oxes or oylets round a bout and so take off fair and softly your bark round a bout and when [illegible] in taken off, [illegible] all over within the bark, with pouder of Cloves or Nutmegs, then set it on againe, and stop it close with wax round a bout, that no water may enter in, and within thrice bearing they shall bring a fair Muscadel Reison, which ye may after both graffe and plant, and they shall be all after a Muscadel fruit; some [illegible] the barke down [illegible] put in [illegible]

To set Appels and Pears to come without blossoming.

FOr to make Apples and Pears, and other sort of fruit [illegible] with out blossoming, that is ye shall graffe them (as ye doe other kind of fruit) upon the fig tree.

To have Apples and Chestnuts rath, and also long on the trees.

FOr to have Appels called (in *Brenn* [illegible] *Durel*, or *de Troal*, and Chestnuts very rath, and long (unto *Alhallantide*) on the trees; and to make such fruit also to endure the space of two years, ye shall graffe them on a latter ward fruit, as Pome Richard, or upon a Pear tree, or Apple tree of Dangoisse.

To have good Cherries on the trees at Alhallaontide.

TO have Cherries on many trees good for to eat unto *Alhallantide*, ye shall graffe them upon a franck Mulberry tree, and likewise to graffe them upon a Willow, or Sallow tree, and they shall endure unto *Alhallantide* on the trees.

For to have rath Medlers two months before others.

FOr to have Medlars two months sooner then others: and the one shall be better far then the other, ye shall graffe them upon a Gooseberry tree, and also a franke Mulbery tree, and before ye do graffe them, ye shall wet them in honey, and then graffe them.

To have rath or timely Peares.

FOr to have a rath Peare, the which is in *France*, as the Pear *Caillonet*, and the Pear *Hastimean*. For to have them rath or soon, ye shall graffe them on a Pine tree, And for to have them late, ye shall graffe them on the Peare called in France *Dangoisse*, or on other like hard Peares.

To have Misples or Medlars without stones.

FOr to have Medlers without stones, the which shall taste sweet as honey, ye shall graffe them as the other, upon an Englantine, or sweet Briar tree, and ye shall wet the graffes (before ye graffe them) in honey.

To have Pears betimes.

FOr to have the Peare *Anguisse*, or *Peare maine*, or *Satege*, (which be of certaine places so called) a month or two before others, the which shall endure and be good until the new come again, ye shal graffe them upon a Quince tree, and like wise upon the franck Mulbery tree.

To have ripe and franck Mulberis very soone or late.

FOr to have franck or ripe Mulberies very soone, ye shal graffe them upon a rath Peare tree, and upon the Gooseberry tree, and to have very late, and to endure unto *Alhollantide*, ye shall graffe them upon the Medler tree.

How to keepe Peare a yeares

YE shall take of fine Salt very drie, and put thereof with your Peares into a barrel, in such sort, that one Pear doth not touch another so fill the barrel if ye list, then stop it, and let it be set in some drie place, that the Salt do not wax moist, thus ye may keepe them long and good.

To have your fruit tast halfe Apples, halfe Peares

IF ye will have your fruit tast halfe a Pear, and halfe an Apple, ye shall in the spring take graffes, the one a Pear, and the other an Apple, ye shall cleave or pare them in the graffing joynt or place, and joyne halfe the Pear Cion, and so set them into your stock,

stock, and see well that no raine do enter therein upon your joynts and that fruit shall bring the halfe a Peare and the other halfe an Apple in taste.

Time of graffings.

IT is good also to graffe one or two dayes before the change, and no more, for looke so many more daies, as ye shall graffe before them, so many more yeares it will be ere your trees shall bring fruit also it is good graffing all the increase of the Moon, but the sooner after the change the better.

To graffe the Quince Apple.

IF ye graffe the Quince Apple upon an Apple stock ye shall not long continue without the canker, but to graffe him on a knotty young Crabstock, he shall endure long without the Canker.

To destroy Pismers, or Ants about a tree.

FOr to destroy Emits or Ants, which be about a tree, if ye remove and stir the earth all about the root of the said tree, and put thereon all about, a great quantity of the soot of a Chimney, and the Ants or Pismires will either away, or else shortly die.

Another for the same.

YE shal take of the saw-dust of Oke-wood onely and straw that all about the tree roots, and the next raine that doth come, all the Pismiers or Ants shall die there. For Earewiggs choose slope with hay, and hanged on the tree one night, they come all in.

To have Nuts, Plummes, and Almonds.

Nuts greater then other.

FOr to have great Nuts, Plums, and Almonds greater then others; ye shall take foure Nuts, or of any of this fruit above said, and put them in to a pot of earth, joyning the one with the other as neere as ye can, then make a hole in the bottome of the pot, through the which holes these Nuts shall be constrained to issue, and being so constrained, shall come to perfection and grow together as in one tree, the which in time shall bring fruit greater and larger then others.

To make an Oake or other tree green in Winter as in Summer.

ALso to make an Oake or other tree to beare green as well in Winter as in Summer, ye shal take the graffe of an Oake tree, or other tree, and graffe it upon the Holly tree: the best and most su-

For to have rath Medlers two months before others.

FOr to have Medlars two months sooner then others: and the one shall be better far then the other, ye shall graffe them upon a Goosebery tree, and also a franke Mulbery tree, and before ye do graffe them, ye shall wet them in honey, and then graffe them.

To have rath or timely Peares.

FOr to have a rath Peare, the which is in *France*, as the Pear *Caillonet*, and the Pear *Hastimean*. For to have them rath or soon, ye shall graffe them on a Pine tree, And for to have them late, ye shall graffe them on the Peare called in France *Dangoisse*, or on other like hard Peares.

To have Misples or Medlers without stones.

FOr to have Medlers without stones, the which shall taste [illegible] honey, ye shall graffe them as the other, [illegible] sweet Briar tree, and ye shall wet the [illegible] in honey.

To have Pea[illegible]

FOr to have the Peare *Anguisse*, or [illegible] of certaine places so called) a mo[illegible] which shall endure and be good unt[illegible] graffe them upon a Quince tree, and [illegible] bery tree.

To have ripe and franck Mulberi[illegible]

FOr to have franck or ripe Mulber[illegible] them upon a rath Peare-tree, and [illegible] to have very late, and to endure unto [illegible] them upon the Medler tree.

How to keepe Peare a ye[illegible]

YE shall take of fine Salt very drie, a[illegible] Peares into a barrel, in such sort, that one Pear doth not touch another so fill the barrel if ye list, then stop it, and let it be set in some drie place, that the Salt do not wax moist, thus ye may keepe them long and good.

To have your fruit tast halfe Apples, halfe Peares

IF ye will have your fruit tast halfe a Pear, and halfe an Apple, ye shall in the spring take graffes, the one a Pear, and the other an Apple, ye shall cleave or pare them in the graffing joynt or place, and joyne halfe the Pear Cion, and so set them into your stock,

stock, and see wel that no raine do enter therein upon your joynts and that fruit shall bring thehalfe a Peare and the other halfe an Apple in tast.

Time of graffings.

IT is good also to graffe one or two dayes before the [illegible], and no more, for looke so many more daies, as ye shall [illegible] before them, so may more yeare: it will be ere, your trees shall bring fruit also it is good graffing all the increase of the Moon, but the sooner after the change the better.

To graffe the Quince Apple.

IF ye graffe the Quince Apple upon an Apple stocke ye shall not long continue without the canker, but to graffe him on a knotty young Crabstock, he shall endure long without the Canker.

To destroy Pismers, or Ants about a tree.

[illegible] or Ants, which be about a tree, if ye [illegible] earth all about the root of the said tree, [illegible], a great quantity of the soot of a Chimney [illegible] miars will either away, or else shortly die.

Another for the same.

[illegible] saw-dust of Oke-wood onely and straw that [illegible] root, and the next raine that doth come, all [illegible] shall die there. For Earewigges shooes stops [illegible] on the tree one night, they come all in.

[illegible] Plummes, and Almonds.

[illegible] greater then other.

[illegible] Plums, and Almonds greater then o[illegible] [illegible] Nuts, or of any of this fruit above-said, and put them in to a pot of earth, joyning the one with the other as neere as ye can, then make a hole in the bottome of the pot, through the which holes these Nuts shall be constrained to issue and being so constrained, shall come to perfection and grow together as in one tree, the which in time shall bring fruit greater and larger then others.

To make an Oake or other tree green in Winter as in Summer.

ALso to make an Oake or other tree to be green as well in winter as in Summer, ye shal take the graffe of an Oake tree, or other tree, and graffe it upon the Holly tree: the best and must su-

reft way is to graffe one through the other. Alſo who ſo will edifie or make an Orchard, he ought (if he can) to make it in a moiſt place whereas the South winds, or Sea winds may have recourſe upon them.

The time of Planting without roots and with roots.

ALſo the beſt time to plant or ſet without roots, as with branches or ſteverings of all ſorts of trees which hath a great pith, as Fig trees, haſel trees, Mulbery trees, and Vines, with other like trees, all which ought to be ſet from the midſt of *September* (if the leaves be off) unto *Alhallentide*; and all other trees with roots ought to be ſet in Advent until *Chriſtmas*, or a non after if the time be not very cold and dangrous.

To keep fruits from the Froſt.

ALſo to keep fruit from the froſt, and in good colour until the new come again, ye ought ſo for to gether them when the time is faire and drie, and the Moon in her decreaſing, and that they lie alſo in very drie places by night covered thin with Wheat-ſtraw, and if the time of Winter be cold and very hard, then put on Hay above them in your ſtraw, and take it away when as a faire time commeth: and thus ye ſhall keepe your fruit faire and good.

The daies to plant and graffe.

ALſo (as ſome ſay) from the firſt day of the New Moon, unto the 13. day thereof, is good for to plant or graffe, or ſow and ſo trees need, ſome do take unto the 17. or 18. day thereof, and not after, neither graffe nor ſow, but as in afore mentioned a day or two dayes before the change, the beſt ſignes are, *Taurus*, *Virgo* and *Capricorne*.

To have green Roſes all the yeare.

FOr to have green Roſes, ye ſhall (as ſome ſay) take your Roſe buds in the Spring time, and then graffe them upon the Holly ſtocke, and they ſhall be green all the yeare.

To keepe Reiſons or Grapes good a yeare.

FOr to keep Reiſons or Grapes good all a whole yeare, ye ſhall take of good drie ſand, and then lay the reiſons or Grapes therein, and it ſhall keep them good a whole yeare. Some keepe them in a cloſe Glaſs from the aire.

To make fruit Lazative from the tree.

FOr to make any fruit layative from the tree, what fruit ſoever it be; make a hole in the ſtock, or in the maſter root of the tree, (with

(with a great Pearcer slopewise) not through, but unto the pith; or some what further, then fill the said hole with the juyce of Elder, of *Centory*, or of *Beny*, or *Turbith* or such like laxatives, then fill the said hole therewith, of which of them ye will, or else ye may take three of them together, & fil the said hole therwith and then stop the said hole close, with soft wax, then clay it theron and put Moss very wel over al, so that nothing may issue or fal out, and all the fruit of the said Tree shal be from thence forth laxative.

Of the Soyle.

IF your ground be baren (for some ar forced to make an orchard of barren ground) make a pit three quarters deep and two yards wide and round in such places where you would set your trees and fill the same with fat, pure, & mellow earth, one whole foot higher then your Soyle, and therein set your Plant. For who is able to manur an whole orchard plot, if it be baren? But if you determine to manur the whole site, this is your way: Digge a trench halfe a yeard deep, all along the lower, (if there be a lower) side, of your orchard plat, casting up all the earth on the inner side, and fill the same with a good short, hot, and tender mucke, and make such another Trench, and fill the same as the first, and so the third, and so throughout your ground. And by this means your plot shall be fertile for your life. But be sure you set your trees, neither in dung nor barren earth.

Your ground must be plain, that it may receive and keepe moysture, not onely the Rain falling thereon, but also water cast upon it or descending from higher ground by Sluces, Conduits, &c. For Pacount moysture in Summer very needfull in the soyle of Trees and drought in winter. provided that the ground neither be bouggy nor the inundation be past 24. hours at any time, and but twice in the whole Summer, and so oft in winter. Therefore if your plot be in a Banke or have a descent, make trenches by dagrees, Allys, Walkes and such like, so as the water may be staid from passage, And if too much water be any hindrance to your walkes (for dry walks do wel become an orchard & an orchard them:) rise your walks with earth first, & therewith stones as big as Walnut: and lastly with gravel. In Summer you need not doubt to much water from heaven, either to hurt the health of your body, or of your trees & if overflowing molest you after one day, avoid it, then by deep trenching.

Grass also is thought needfull for moysture, so you let it not trench the roots of your trees: for it will breed mosse, and the Boall of your tree neer the earth would have the comfort of the sun and ayre.

Here

Here followeth certaine waies of Plainting and Graffing, with other neceſſaries herein meet to be knowne.

To graffe one Vine on another.

YOu that will graff one Vine upon another, ye ſhal in *Ianuary*, cleav the head of the Vine, as ye do other ſtocks and then put in your graff, or Cion, but firſt ye muſt pan him thinner ye ſet him in the head, then Clay and Moſs him as the other.

Choſen dayes to Graffe in, and to chooſe your Cions.

WHenſoever that ye will Graffe, the beſt choſon time is on the laſt day before the change, and alſo in the change, and on the ſecond day after the change, if ye graff (as ſome ſay) on the third, fourth, and fifth day after the change, it will be ſo many yeares, ere thoſe Trees bring forth fruit. Which thing ye may beſeey if ye will, but I will not, for ſom do hold opinion, that it is good graffing from the change, unto the eighteen day thereof, which I thinke to be good in all the increaſing of the Moon, but the ſooner the better.

To gather your Cions.

SUch Cions or Graffes, which ye do get on the other Trees, the young Trees of three or foure yeares or five or ſix yeares are beſt to have graffs. Take them off no under boughes, but in the top upon

upon the East side, if ye can, and of the fairest and greatest. Ye shall cut them two inches long of the old Wood, beneath the joynt. And whensoever ye will graffe, cut or pare your graffes taperwise from the joynt, two inches or more of length, which ye shall set into the stocke: and before ye set it in ye shall open your stock with a wedge of Iron, or hard wood, fair and softly: then if the sides of your clefts be ragged, ye shall pare them with the point of a sharpe knife on both sides, within and above, then let your graffes close on the outsides, and also above, but let your stock be as little while open as you can, and when your graffes be well in, pluck forth your wedge: and if your stocke do pinch your graffes much, then ye must put in a wedge of the same wood to help your graffes: Then ye shall lay a thicke barke or pill over the cleft, from the one graffe to the other, to keepe out the Clay and Raine, and so Clay them two fingers thicke round about the Cliffes, and then lay on Mosse, but Woole is better next to your Clay, or else to temper your Clay with Wool or Haire, for it shall make it bide closer, and also stronger on the stocke head: some take Woole next the Clay, and wrapeth it all over with linnen clouts, for the Woole being once moist will keepe the Clay fast a long time. And othersome take Woollen clouts that have been laid in the juyce of Worm-wood, or such like bitter things to keep creeping wormes from comming under to the graffes. If ye graffe in Winter, put your Clay upper most, for Summer your Mosse. For in Winter the Mosse is warme, and your Clay will not cleave. In Summer your Clay is cold, and your mosse keeps him from clearing or chapping. To bind them, take of Willow pils, of cloven Reines, of Oziers, or such like, To gether your graffes on the East part of the tree is counted best: If ye gather them below on the under boughes, they wil grow straggle, and spreading abroad: If ye take them in the top of the tree, they will grow upright, Yet some do gather their Cions or Graffes on the sides of the trees, and so graffe them again on the like sides of the stocks, the which is of some men not counted so good for fruit. It is not good to graffe a great stock, for they will be long ere they cover the head thereof.

Of Wormes in trees or fruit.

IF ye have any trees eaten with wormes, or do bring wormie fruit, yee shall use to wash all his body and great branches with two parts of Cow pisse, and one part of Vinegar, or else it

ye can get no Vinegar, with Cow piſſe alone, tempred with common aſhes: then waſh your trees therewith before the Spring, and in the Spring, or in Summer. Annuleeds ſown about the tree roots, drive away wormes, and the fruit ſhall be the ſweeter.

The ſetting of ſtones and ordering thereof.

AS for Almond trees, Peach trees, Cherry trees, Plum trees, or others, ye ſhall thus plant or ſet them. Lay firſt the ſtones in water, three daies and foure nights, untill they ſinke therein: then take them betwixt your finger and your thumb, with the ſmall end upward, and ſo ſet them two fingers deep in good earth. And when ye have ſo done, ye ſhall take them all over, and ſo cover them: and when they begin to grow or ſpring, keepe them from weeds, and they ſhall proſper the better, eſpecially in the firſt yeare. And within two or three years after, ye may ſet or remove them where ye liſt, then if ye doe remove them againe after that, ye muſt prune off all his twigs, as ye ſhall ſee cauſe, nigh the ſtock: thus ye may doe of all kind of trees, but eſpecially thoſe which have the great ſap, as the Mulbery, or Fig trees, or ſuch like.

To gether Gumme of any tree.

IF ye liſt to have the Gumme of an Almond tree, ye ſhall ſticke a great naile into the tree, a good way, and ſo let him reſt, and the Gumme of the tree ſhall iſſue thereat: thus do men gether Gumme of all ſorts of trees: yet the common Gumme that men do uſe and occupy.

To ſet a whole Apple.

ALſo ſome ſay, that if ye ſet a whole Apple, ſure fingers in the earth, all the Pepins or Curnels in the ſame Apple will grow up together in one whole ſtock or Cion, and all thoſe Apples ſhall be much fairer and greater then others, but ye muſt take heed, how ye do ſet thoſe Apples, which doe come in leape yeare, for in a leap year (as ſome do ſay) the Curnels or Pepins are turned contrary, for if ye ſhould ſo ſet, as common'y a man doth, ye ſhall ſet them contrary.

Of ſetting the Almond.

ALmonds do come forth and grow commonly wel, if they be ſet without the ſhel or huske, in good earth, or in rotten Hogges dung: If ye lay Almonds one day in Vinegar, then ſhall they (as ſome ſay) be very good to plant: or lay them in Milk and water, untill they do ſink, they ſhall be the better to ſet, or any other Nut.

Of

Of Pipins waterad.

THe Pepins and Curnells of those Trees, which have a thick or rough barke, if ye lay them three dales in water, or else untill thay sinke therein, they shall be the better, then set them, or sow them, as is afore mencioned, and then remove them, when they be wel rooted, of three or foure yeares grooth, and they shall have a thin bark.

To Plant or set Vines.

IF ye plant or set Vines, in the first second yeare, they will bring no fruit, but in the third yeare they will beare, if they be well kept: ye shall cut them in January, and set them soon after they be cut from the Vine, and ye shall set two together, the one with the old wood, and the other with out, and so let them grow, in pluking away all weeds from about them, and then ye shall remove them in the second and third yeare, being well rooted, ye shall set them well a foot deep in good fat earth, with good dung as of one foot deepe, or thereabouts, and keepe them cleane from weeds, for then they will prosper the better, & in summer when the Grape is knit, then ye shall break off his top on brance, at one or two joynts after the Grape, and so the grape shall be the greater, and in the winter when ye cut them, ye shall not leave past two or three leaders on each branch, on some branch but one leader, which must be cut be twixt two joynts, and ye shall leave the young Vine to be the leader. Also ye shal leave thereof three or foure joynts at all times; if a young Cion do come forth of the old branch, or side thereof, if ye do cut him, ye shall cut him hard by the old branch, and if ye will have him to bring the Grape next yeare, ye shal leave two or three joynts thereof, for the young Cions alwaies bringeth the grape: ye may at all times, so that the grapes be once taken and knit, ever as the superfluous Cion, do grow, ye may break them off at a joynt, or hard by the old branch, and the grapes will be the greater: thus ye may order your Vine all the summer long without any hurt.

To set or plant Cherry.

CHerry trees, and all the trees of store fruit, would be planted or set of Cions, in cold grounds and places of good earth, and like wise in high or hilly places, drie and well in the shade: if ye do remove, ye ought to remove them in Nouember and January, if ye shal see your Cherry tree wax rotten, then shal ye make a hole in the midest of the body two foot above the ground, with a bigger ex-

ser, that the humour may passe forth thereby, then afore the spring shut him up againe with a dine of the same Tree: thus ye may do unto all other sorts of trees when they begin to rot, and is also good for them which beare scant of fruit or none.

To keepe Cherries good a yeare.

YEe shall cut off the stalkes, and then lay them in a well leaded pot, and fill the said pot therewith, then put unto them of good thin Honey, and fill the said pot therewith, then stop it with Clay that no aire enter in, then set them in some faire Seller, and put one sand under and all about it, and cover the pot well withall so let it stand or remaine: thus ye may keepe them a yeare, as fresh as though they came from the tree, and after this sort ye may keep Bares or other fruit.

Against Pismiers.

IF ye have Cherry tyres laded or troubled with Pismiers or Ants, ye shall rub the body of the tree, and all about the root with the juyce of purslaine, mingled halfe with Vinegar. Some do use to annoint the Tree beneath, and all about the bodie, with Tarre and Birdlime, with Whol, & oyle boiled together, and a noint the tree beneath there wish, and lay Chalkestones all about the Tree root; some say it is good therefore.

The setting of Chestnuts.

THe Chestnut trees, men do use the plant like unto the Feg-trees They may be both plantid and graffed wel, they wax wel in fresh and fat earth, for in sand they like not. If ye will set the curnels, ye shall lay them in water untill they do sinke, and those that do sink to the bottome of the water be best to set, which ye shal set in the Month of November and December, fore fingers deepe, a foot one from another, for when they be in these two months set or planted, they shall endure long, and beare also good fruit; yet some there be that plant or set them first in dung like beanes that will be sweeter then the other sort, but those which b. set in the two months aforesaid, shall first beare their fruit, men may prove which is best, experience doth teach. This is another way to proove & know, which Chestnuts be best to plant or set; that is, ye shal take a quantity of nuts, then lay them in sand the space of thirty daies, then take and wash them in water faire and clean, and throw them into water againe, and those that do sinke to the bottom are good to plant or set, & the other which swim are

naughty

naughs: thus may ye do with all other Curnele or Nuts.

To have all stone fruit tast as ye shall thinke good.

IF ye will have all stone fruit taste as ye shal fancy or think good, ye shall first lay your stones to soke in much liquor or moisture, as ye will have the fruit tast of, and then set them; as for the Date trees (as some say) he bringeth no fruit except he be an hundred yeare old; and the Dat stones must soke one month in the water, before he be set, then shal ye set him with the small end upward in good fat earth. in hot sandie ground four fingers deep, and when the boughs do begin to spring, then shall ye every night sprinkle them with rain water, (or other if ye have none) so long till they come forth and grown.

Of graffing the Medlar and Misple tree.

FOr to graffe one Medlar, or misple: men do use to graffe them on the whit Hathorne tree, they will proove well, but yet smal and sower fruit; to graft one Medlar upon another is the better, some men do graffe first the Wilding Cion upon the Medlar stock, and so when he was wel taken and grown, then they graffe thereon the Medlar againe, the which do make them more sweet, very great and faire.

Of the Fig-tree.

THe Fig tree in some Countries, beareth his fruit foure times a yeare, the black Figs are the best, being dried in the Sun, and then laid in a vessel in bede one by another, and then sprinkled or strawed all over, every lay with fine meale, then stop it up, and so it is sent out of the Land. If the Fig tree wil not beare, ye shal dig him all about, and under the roots in Febuaray, and take out then al his earth, and put unto him the dung of privie, for that he liketh best; ye may mingle with it of other fat earth, as Pigeons dung minged with oyle and peper stampt, which shal forward him much to an oint his roots therewith; ye shal not plant the Fig tree in cold times, he loveth hot, or stonie, grauilly ground, and to be planted in Autumne is best.

Of the Mulbery tree.

IF ye wil plant the Mulbery tree, the Fig tree or other which bring no seed, ye shal cut the twig or branch (from the tree root) of a yeare growth, with the old wood or barke, aboue cubit long, which ye shall plant or set all in the earth, save a shafnet long to

it, and so let it grow, in watering it as ye shall see need. This must be done before the leaves begin to spring, but take heed that ye cut not the end or top above, for then it shal wither and dry.

Of trees that beare bitter fruit.

OF al such trees as bear bitter fruit, to make them bring sweeter, ye shall uncover all the roots in January, and take out all that earth, then put unto them of Hogges dung great plenty, and then after put unto them of other good earth, and so cover them therewithal wel againe, and their fruit shall have a sweeter last. This men may do with other trees which bring bitter fruit.

To help barren trees.

HEare is a nother way to help barren trees, that they may bring fruit: if ye see your tree bare in three or foure years good plenty, ye shall bore a hole with an Auger or Pearcer, in the greatest place of the body (with in a yard of the ground) but not through, but unto or past the hart, yo shall bore him a slope: then take honney and water mingled together a night before, then put the said honney and water into the hole, and fill it therewith, then stop it close with a short pin made of the same tree, not striken in too far for percing the Liquor.

Another way.

IN the beginning of Winter ye shall dig those trees round about the roots, and let them so rest a day and night, and then put unto them of good earth, mingled wel with good store of water Oats, or with water Barley or Wheat, laid next unto the roots, then fill it with other good earth, and he shall beare fruit, even as the boring of a hole in the master root, and strike in a pin, and so fill him againe, shal help him to beare as afore declared.

To keepe your fruits.

ALl fruit may be the better kept, if ye lay them in dry places, in dry Straw or Hay; but hay ripeth too soon, or in a Barly mow, not touching one the other, or in Chaffe, or in vessels of *Juniper*, or *Cipres* wood, ye may so keep them wel in dry Salt or Hony and upon bords, whereas the fire is nigh all the winter, also hanging nigh fire in the winter, in Nets of yarn.

The Mulbery tree.

THe Mulbery tree, is planted or set by the Figtree, his fruit is first sower, and then sweet, he liketh neither dew or raine, for they hurt him, he is wel pleased with foule earth and dung. His branchis

branches wil wax dry within every six years; then must ye cut them off, as for other trees they ought to be pruned every year, as ye shal see cause, and they wil be the better, and to plant them from mid *February*, to mid *March* is best.

Of Mosse of trees.

YE must not let your trees be too long uncleansed, ye must rub off the moss with a grat of wood, or a rough haire, or such like when they be moist or wet, for then it wil off the sooner, for mosse doth take away the strength and substance of the fruit, and makes the trees barren at length: when you see your trees begin to wax Mossie, ye must in the winter uncover their roots, and put under them good earth; this shall helpe them, and keep them long without Mosse, for the earth not stirred about the roor, is one cause of Mossinesse, and also the barrennesse of the ground whereon hee standeth, and your mosse both succour in Winter, Flies and other vermine, and so doth therein hide them in Summer, which is occasion of eating the blossoms, and tender Cions thereof.

To keepe Nuts.

FOr to keepe Nuts long, ye shal drie them and cover them in drie sand, and put them in a drie bladder, or in a Fat made of Walnut tree, and put of drie Ivie berries therein, and they shall be much sweeter. To keepe Nuts green a yeare, and also fresh, ye shall put them into a pot with honie, and they shall continue fresh a yeare, and the said honey will be gentle and good for many Medicines. To keepe Walnuts fresh and green, in the time of seasoning of Vergjuyce, ye shall take of that Pommis, and put thereof in the bottome of a barrel, then lay your Walnuts all over, then Pommis over them, and so Walnuts againe, and then of the Pummis, as you shall see cause to fill your vessel. Then stop him close as ye do a barrell, and set him in your seller, or other place, and it shall keep your Nuts fresh and green a yeare. Some use to fill an earthen pot with small Nuts, and then put to them drie sand, and cover them with a lid of earth, or stone, and then they clay it, setting the mouth of the pot downward, two foot within the earth, in their garden, or other place, and so they will keepe very moist and sweet untill new come.

To cut the Peach tree.

THe Peach tree is of this nature, if he be cut (as some say) green it will wither and drie. Therefore if ye cut any small branches,

cut

cut it heard by the body: the withered twigs even as they wither, muſt be cut off hard by the great branches, or body thereof, for then they doe proſper the better. If a Peach tree do not like, ye ſhall put to his roots, the Lees of Wine mingled with water, and alſo waſh his roots therewith, and likewiſe the branches, then cover him again with good earth mingled with his own leaves, for thoſe he liketh beſt. Ye may graffe Peach upon Peach, upon Haſil, or aſh, or upon Cherie tree, or ye may graffe the almond upon the peach-tree. And to have great Peaches, ye muſt take Cowes milke, and put good earth thereto, then all to ſtrik the body of the tree therewith, both upward and downward, or elſe open the root all bare, three dayes and three nights, then take Goats milke, and waſh all the roots therewith, and then cover them againe: this muſt be done when they begin to bloſſome, and ſo ſhall he bring great Peaches.

To colour Peach ſtones.

TO colour Peach ſtones that all the fruit thereof ſhall have the like colour hereafter, that is, ye ſhall lay or ſet Peach ſtones in the earth ſeaven daies or more, untill ye ſhall ſee the ſtones begin to open, then take the ſtones and the curnels ſoftly forth thereof and what colour ye will, colour the curnel therewith, and put them into the ſhel againe, then bind it faſt together, and let it in the earth, with the ſmal end upward, and ſo let him grow, and all the Peaches which ſhall come of the ſame fruit, (graffed or ungraffed) will be of the ſame colour. The Peach tree ought to be planted in Autome, before the cold do come, for he cannot abide the cold.

If Peach-trees be troubled with wormes.

IF any Peach trees be troubled with wormes, ye ſhall take two parts of Cow piſſe, with one part of Vinegar, then ſhall ye ſprinckle the tree all over therewith, and waſh his roots and branches alſo, and it will kill the wormes: This may ye do to all other trees, which be troubled with worms.

To have Peach without ſtones.

YE ſhall take a Peach tree newly planted, then ſet a Willow hard by, which ye ſhall bore a hole through, then put the Peach tree through the ſaid hole, and ſo cloſe him on both ſides thereof, Sap to Sap, and let him ſo grow one yeare, then the next yeare ye ſhal put off the peach ſtock, and let the Willow feed him,

and

and cut of the upper part of the willow also three fingers high, and the next winter saw him off nigh the peach, so that the Willow shall feed but the peach onely: and this way ye may have peaches without stones.

Another way for the same.

YEe shall take the graffe of Peaches, and graffe them upon the Willow stocke, and so shall your Peaches be likewise without stones.

If Trees doe not prosper.

IF that ye see that your tree doe not wax nor prosper, take and open the roots in the beginning of January, or afore, and in the biggest root thereof, make a hole with an Auger to the pith or more, then strike therein a pin of Oake, and so stop it again close, and let it be wel wax all about the pinne, then cover him againe with good earth, and he shall doe wel: some doe use to cleave the root.

How to graffe Apples, to last on the tree till Allhallontide.

HOw ye may have many sorts of Apples upon your trees untill *Allhallontide*, that is, ye shall graffe your Apples upon the Mulbery tree, and upon the Cherry tree.

To make Cherries and Peaches smell, and taste like spice.

HOw to make Cherries and Peaches, shall be pleasant, and shall smell and taste like spice, and that yee may keepe them well, till the new do come againe, ye shall graffe them on the Mulbery tree, as is aforesaid. But first ye shall soke them in Honey and Water, wherein ye shall put of the powder of Cloves, Ginger, and Cinamon.

To graffe an Apple which shall be halfe sweet and halfe sower.

TO graffe that your Apples shal be the one halfe sweet and the other halfe sower: ye shall take two Cions, the one sweet and the other sower, some do pare the one Cion through the other and so graffes them between the barke and the tree: and some againe do pare both the Cions finely, and so set them joyning into the stock, inclosing sap to sap, on both the outsides of the graffes, unto the outside of the stocke, and so sets them in to the head as the other; and they shall bring forth the one halfe sweet and the other halfe sower.

To graffe a Busson the Holly.

FOr to graffe the Holly, that his leaves shall keep all the yeare green; Some doe take and leave the Holly, and so graffes in a

white or red Roſe bud, and then put Clay and Moſſe to him, and let him grow, and ſome do put the Roſe bud into a ſlit of the bark and ſo putteth Clay and Moſſe, and binds him featly therin, and let him grow and he ſhall carry his leaſe all the yeare.

Of keeping of Plums.

OF Plummes there be many ſorts, as Damſons, which bee all blacke, and counted the beſt: All manner of others Plums a man may keepe wel a yeare, if they be gathered ripe, and then dryed and put into veſſels of Glaſſe: If ye cannot dry them well in the Sunne, ye ſhall dry them one hurdels of Oziars made like Lettice Windowes, in a hot Oven after Bread is drawne forth, and ſo reſerve them. If a Plum-tree like not, open his root, and power in al about the dregs of Wine mixt with water, and ſo cover him wel again, or powre on them ſtale Urine, or old piſſe of old men, mixt with two parts of Water, and ſo cover him as before.

Of altering Peares, or ſtony fruit.

IF a Peare do taſt hard or gravelly about the core, like ſmall ſtones, ye ſhall uncover his roots (in the Winter, or afore the ſpring) and take out all the earth thereof, and pick out all the ſtones as clean from the earth, as ye can about his root, then ſift that earth, or elſe take off other good fat earth without ſtones, and fill all his roots again there with, & he ſhal bring a ſoft and gentle Peare to eat; but ye muſt ſee well to the watering of him often.

The making of Cider and Perrie.

OF Apples and Peares, men do make Cider and Perry, and becauſe the uſe thereof in moſt places is knowne, I will here let paſſe to ſpeake any further thereof, but this (in the preſſing your Cider) I will counſel you to keepe cleane your veſſels, and the places whereas your fruit doth lye, and eſpecially after it is bruſed or broken, for then they draw filthy aire unto them and if it be nigh the Cider ſhal be infected therewith, and alſo beare the taſte after the infection thereof: therefore as ſoone as you can, turne it into cleane and ſweet veſſels, as into veſſels of white Wine, or of Sack or Claret, and ſuch like, for theſe ſhall keep your Cider the better and the ſtronger a long time after: Ye may hang a ſmal bag of Linnen by a threed, down into the lower part of your veſſel with powder of Cloves and Mace, cinamon, and Ginger, and ſuch like, which will make your Cider to have a pleaſant taſt.

To

To helpe frozen Apples.

OF Apples that be frozen in the cold and extream Winter. The remedie to have the Ice out of them, is this: Ye ſhall lay them firſt in cold water a while, and then lay them before the fire, or other heat, and they ſhall come to themſelves againe.

To make Apples fall from the tree.

IF ye put of fiery coles under an Apple tree, and then caſt off the powder of Brimſtone therein, and the ſmoke thereof aſcend up, and touch an Apple that is wet, that Apple ſhall fall incontinant

To water trees in Summer, if they want moiſture about the root.

WHereas Apple trees be ſet in dry ground, and not deepe in the ground in Sommer: if they want moiſture, ye ſhall take of wheat ſtraw, or other, and every evening (or as ye ſhal ſee cauſe) caſt thereon water all about, and it will keepe the trees moiſt from time to time.

To cheriſh Apple trees.

IF ye uſe to throw (in winter) all about your Apple trees on the roots thereof, the Urine of old men or ſtale piſſe long keept, they ſha'l bring fruit much better, which is good for the Vine alſo, or if ye do ſprinkle or anoint your Apple tree roots with the gall of a Bull, they ſhall beare the better.

To make an Apple grow in a Glaſſe.

TAke a glaſſe, what faſhion you wil, and put your Apple therein when he is but ſmal, and bind him faſt to the glaſſe, and the glaſſe alſo to the tree, and let him grow, thus ye may have Apples of divers proportions, according to the faſhion of your glaſſe. Thus may ye make of Cucumbers, Gourdes, or Pomicitrons, the like faſhion.

THese three branches and figur of graffing in the field in Sommer, is, the first branch sheweth how the barke is taken off, the middle place sheweth, how it is set too, and the last branch sheweth how to bind him on, in saving the oylet or eye from bruising.

To graffe many sorts of Apples on one tree.

YOu may graffe on one Apple tree at once, many kind of Apples, as on every branch a contrary fruit, as is afore declared and of Peares the like: but see as nigh as you can, that all your Cions be of like springing, for else the one will not grow and shadow the other.

To colour Apples.

TO have coloured Apples, with what colovr ye shal think good ye shal bore slope a hole with an Auger in the biggest part of the body of the tree, unto the midst thereof, or there abouts, and then look what colour ye will have them of. First ye shall take water and mingle your colour therewith, then stop it up again

with

with a ſhort pin made of the ſame wood or tree, then wax it round about: ye may, mingle with the ſaid colour what ſpice ye liſt, to make them taſt there after: thus may yee change the colour and taſt of any Apple: your colours may be of *Saffron*, *Toune ſoule*, *Braſell Saunders*, or other what ye ſhall ſee good. This muſt be done before the Spring do come: ſome do ſay, if ye graffe on the Olive ſtock, or on the Alder ſtock, they will bring red Apples. Alſo they ſay, to graffe to have fruit without core, ye ſhall graffe in both ends of your Cion into the ſtock, and when they be faſt grown to the ſtock, ye ſhall cut it in the midſt, and let the ſmaller end grow upward, or elſe take a cion and graffe the ſmall end of the ſtock downward, and ſo ſhall ye have your Apple tree on S. *Lamberts* day (which is the 17. of *September*) they ſhall never waſt, conſume, nor wax dry, which I doubt.

The ſetting of Vine Plants.

THeſe figures do ſhew how ye ought to plant and ſet your Vines in two and two together, the one to have a part of the old tree, and the other may be all of the laſt Cion: but when ye plant him with a part of the old tree, he ſhall commonly take roote ſooner then the new Cion, ye muſt weed them every moneth, and let not the earth be too cloſe above their roots at the firſt, but now and then looſe it with a ſpade as ye ſhall ſee a raine paſt, for then they ſhall enlarge, and put forth better. Further herein ye ſhall underſtand after.

THis figure ſheweth, how all Vines ſhould be pruned and cut, in a convenient time after Chriſtmas, that when ye cut them yee ſhall leave his branches very thin, as ye ſee by this figure: yee ſhal never leav above two or three leaders at the head of any principall branch, yee muſt alſo cut them off in the midſt between the knots of the young Cions, for thoſe be the leaders which will bring the grape, the reſt in order yee ſhall underſtand as followeth

Of the Vine and Grape.

SOmewhat I intend to ſpeak of the ordering of the Vine and Grape, to plant or ſet the Vine: the plants or ſets which be gath red from the Vine (and ſo planted) are beſt, they muſt not be old gathered, nor lie long unplanted after they be cut, for then they will ſoon gether corruption, and when ye do gether your plants, ye muſt take heed to cut and chuſe them, where ye may with the yong Cion, take a joynt of the old wood with the new, for the old wood will ſooner take root then the new, & better to grow then If it were all young Cion, ye ſhall leave the old wood to the young Cion, a foot, or halfe a foot or a ſhaftnet long, the young Cion ye ſhall cut the length of three quarters of a yard or there abouts and ye ſhall chuſe of thoſe young Cions that bee thickeſt joynted or nigh joynts together, and when yee ſhall plant or ſet them looke that your ground be well digged in the winter before, then

in

in January ye may both cut and Plant, but cut not in the froſt for that is danger of all kind of trees, or ye may plant in the beginning of Febuary, and when ye do plant, ye ſhall take two of thoſe plants and ſet or lay them together, a foot deepe in the earth, for two plants ſet together will not ſo ſoone faile as one alone and lay them a foot long wayes in the earth, ſo that there may be above the earth three or foure joynts: ye may plant a young Cion with the old, ſo that he be thick or nigh joynted, for then he is the better to root, and alſo to bring fruit: then when ye have ſet or laid them in the earth, then cover them well therewith, in treading it faſt downe unto the plants, but let the ends of your Cions or plants be turned up right, above the earth three or foure joynts, and there ſhall be more when they be ſet, ye ſhall cut them off, and ye ſhall cut them alwaies in the midſt between the two joynts and then let them ſo grow, and ſee that ye weede them alwaies cleane, and once a moneth looſe the earth round about them and they ſhall prove the better. If it be very dry and hot in the Summer after, yee may water them, in making a hole with a Crow of Iron to the root, and there yee ſhall povre in water in the evening. As for the pruning of them, when the Grape is taken and cluſtered, then yee may break the next joynt or two after the Grape, of all ſuch ſuperfluous Cions as yee ſhall ſee cauſe, which will cauſe the Grape to wax bigger: Yee may alſo breake away all ſuperfluous buddes, or ſlender branches, which commeth about the root, or on the under branches which ye thinke will have no Grape, and when ye prune or cut them in winter following, ye ſhall not cut the young Cion nigh the old, by three or foure joynts, ye ſhall not cut them like Oziers, to leave a ſort of heads together one the branch which doth kill your Vine ye ſhall leave but one head, or two at the moſt of the yonng Cions upon the old branch, and to cut thoſe young Cions three or foure knots or joynts off, for the young Cions doe carry the Grape alwaies, and when yee leave upon a great branch many Cions, they cannot be well nourriſhed, and after yee have ſo cut them in winter, ye ſhall bind them with Oziars, in placing thoſe young branches as ye ſhal ſee cauſe and in the ſpring time, when the branches are tender, ye ſhall binde them ſo, that the ſtormy tempaſt or winde doe not hurt them, and to bind them withal, the beſt, is, great ſoft Ruſhes, and when the Grape is cluſtered,

then

then ye may break off all such branches as is afore declared, upon one old branch, three or foure heads be enough, for the more heads your branch hath, the worse your Grape shall be nourished, and when ye cut off any branch, cut him off hard by or nigh the old branch: if your Vine wax old, the best remedy is, if there grow any young Cion about the root, ye shall in the winter cut off the old Vine hard by the ground, or as nigh as you can, and let the young Vine lead, and he will continue a long time, if yee cover and fill the place about the root with good earth againe. There is also upon, or by every cluster of Grapes a small Cion like a Pigs taile, turning about, which doth take away the sap from the Grape, if ye pinch it off hard by the stalke of your Grape your fruit shall be the greater. If your Vine wax too ranke and thick of branches, ye shall dig the root in winter, and open the earth, and fill it up againe with sand and ashes blend together, and whereas a Vine is unfruitfull and doth not beare yee shall bore a hole (with an auger) unto the heart or pith, in the body or thickest part thereof, then put in the said hole a small stone, but fill not the hole close therewith, but so that the sickneſſe of the Vine may passe thereby. Then lay all about the root of good earth mingled with good dung, and so shall he not be unfruitfull, but beare well ever after: or also, to take an old mans Uring or pisse, all about the root of the barren Vine, and if he were half lost or mard he should grow againe, and wax fruitfull, as before: This is to be done in winter.

To have Grapes without stones.

YEe shall take young plants, or branches and shall set or plant the top or small end downward in the earth, and so ye may set two of them together for falling, as I have afore declared of the others, and those branches shall bring Grapes without stones.

To make your Vine to bring a Grapes tast like Claret.

TO make your Vine to have a Grape to tast like Claret Wine, and pleasant withall, ye shall bore a hole in the stock unto the heart, or pith thereof, then shall ye make a lectuary with the powder of cloves, of Cinamon mingled with a little fountaine or running water, and fill the said hole therewith, and stop it fast and close with wax, and so bind it fast thereon, with a linnen cloath, and those Grapes shall tast like Claret wine.

Of

Of gathering [illegible]

ALl Grapes that man do cut, [illegible] they are [illegible] the wine shall not be naturall, nor yet shall [illegible] But if ye will cut or gather grapes to have them good [illegible] good Wine thereof, ye must cut them in the full, or soon after the full of the Moone, when she is in *Cancer*, in *Leo*, in *Scorpio*, and in *Aquarius*, the Moon being in the waine, and under the earth.

To know if your Grapes be ripe enough.

FOr to know if your grapes be ripe enough or not, which yee shall not only [illegible] in [illegible] and [illegible] to gether, as in taste if they be sweet and [illegible] of [illegible] and in sight, if the stones [illegible] soon [illegible] which is the best knowledge, and also whether they be white or blew, it is all one matter: [illegible] good Grapes [illegible] cut all watry, or those which be all clammy in birdlime, By these signes shall ye know when to cut, being thorow ripe or not, and where as ye doe presse your wine, ye must make your place [illegible] cleane, and your vessels within to be cleane also, [illegible] they have strong heads, and those persons which [illegible] Grapes [illegible] the Grapes [illegible] And also ye shall eate of no Cheboles, Scallions, [illegible] Clouts, or Garlike, Anniskede, or such like: For all strong [illegible] your wine will draw the [illegible] thereof, [illegible] your Grapes [illegible] such sweet vapour; and if your [illegible] shall ye pitch him on the sides, which pitch will take away all evill, and [illegible] sauiour therein.

To prove or taste Wine.

[illegible] prove or taste any Wine, the best time [illegible] this present) to speake any further here of the [illegible] If

Together the Hopes.

At such time afore *Michaelmas*, as ye shall see your hop was browne or somewhat yellow, then be it best to be gathered in a dry day, in cutting your Hop by the ground, then plucke up your pole therewith for shaking off your Hop, so carry them into some dry house, and when ye have so plucke them, yee shall lay them on borded lofts, or on hurdels of clothes, that the wind may dry them, and the aire, but not the Sun, for the same will take away the strength thereof, nor with fire, for that will do likewise and ye shall tosse and turn them daily till they be drie: to try them when they are dry, hold them in your hand a space, and if they cleave together when ye opens our hand, they are not then drie: but if they shatter asunder in opening your hand then ye may be sure they are drie enough, if not, let them remaine and use ye them as is before said. Ye shall understand the drinesse of them is to preserve them and long to last, but if need be, ye may occuped them well undried, with lesse portion to sow.

Woat Poles are best.

Yee shall prepare your Poles of such wood as is light and stiff, and which will not bow with every winde, the best and meetest time to get them [illegible] and as soone as ye have taken off your Hoppe, lay your Poles in sundry places untill the next spring, whereby they may endure the longer.

How to order and [illegible] Hills.

After the first yeare is [illegible] plenty of roots in your hill, ye shall after *Michaelmas* every yeare, open your hills, and [illegible] covering them, and [illegible] pluck away all the roots [illegible] then opens the hills and puts on good new earth unto them, and so covere them againe, which [illegible] from the Frost, and also make the ground [illegible] Spring, [illegible] which will take away [illegible] them rest till your Poles may be set therein.

Of

Of ground for your Hop.

THe Hoppe delighteth and loveth a good and reasonable fat ground, not very cold, nor yet too moist, for I have seene them prove well in *Flanders*, in drie sandy fields, the Hoppe hils being of good fat earth, ye may (as some say) for great needs make your Hoppe grow and beare on any kinde of rockie ground, so that your hils be great and fat earth; but the lower ground commonly proveth the best, so that it stand well and hot in the Sun.

A note of the rest above-said.

Yhe shall marke and understand, all this order above-said, is to have many Hoppes and good, with a few roots, and plants placed in a small plot of ground, ye shall understand, the wilde Hoppe that groweth in the hedges, is as good to occupie as the other, to set or plant in any other place, but looke that ye take not the barren Hoppe to plant, some Hoppe will be barren for want of good earth, and lack of dressing, which yee shall perceive (as I have told you) in the Summer before, that when they should beare they will be barren, which is for want of good fat earth, or an unkind yeare, or lacke of weeding and good ordering. Therefore such as are minded to bestow labour on the ground, may have as good Hoppe growing in this Country, as is in other Countries: but if ye will not goe to the cost, to make Hop-yards, ye may with a light charge have Hops grow in your hedge-rowes, to serve as well as the other, and shall be as good for the quantity as the other in all respects; ye may (for lacke of ground) plant Hop-roots in hedge-rowes, when ye do quick-set, set up poles by them when time shall require in the spring, and to bestow every winter after the gethering your Hoppe, one every hill head a shovell full of dung to comfort the earth, for then will they beare the more plenty of Hoppe the next yeare following: to conclude, you that have grounds may well practise in all things afore mentioned, and specially to have hoppe in this ordering for your selves, and others: also ye shall give encouragement for others to follow hereafter. I have heard by credible persons, which have knowne a hundred hils, (which is a small plat of ground) to bear three hundred pound of Hope, so that the commodity is much, and the gaines great: and one pound of our Happe dried and ordered, will goe as farre as two pound of the best Hoppe that com-

 meth

MVSEVM
BRITAN
NICVM